Acc. 12-053
Killip, Field Notes #14000-17290.
1926-27

I

I

K. S. Colombia
1400 - 15645

II

K. S. Colombia
15646 - 17290

EXPLORATION IN COLOMBIA
EASTERN CORDILLERA

Dept. Santander: Vicinity of California; alt. meters.

No. E. P. KILLIP } Collectors. Jan. 11-27, 1927
ALBERT C. SMITH }

Collected under the auspices of the New York Botanical Garden,
Gray Herbarium of Harvard University, United States
National Museum, and the Arnold Arboretum.

herb	H.	red	r.
tree	T.	orange	o.
shrub	S.	yellow	y.
fern	F.	blue	b.
flowers	F.	green	g.
fruit	Fr.	violet	v.
		purple	pur.
		pink	pi.
		brown	b.
		white	w.

plenty u

photographed P.

Smithsonian Inst.
Washington, D.C.

14001 Mimosa
 14002 Mimosa
 14003 Mimosa
 14004 Cakile
 14005 Rauwolfia Tabernamontana
 14006 Adenocalymna
 14007 Valerianodes
 14008 Dalbergia
 14009 Wissadula
 14010 Fimbristylis miliacea
 14011 Rhizophora mangle
 14012
 14013 Rauwolfia
 14014
 14015 Dalbergia
 14016 Polichia
 14017 Sterculia
 14018 Amerinum
 14019 Wissadula
 14020
 14021 comp.
 14022 Torricarpus
 14023 Alternanthera lehmannii
 14024 "Clematis"
 14025 Ricinus communis
 14026 Cordia allia
 14027 Cassia ligustrina
 14028 Cassia tora
 14029 Stenodia durantifolia
 14030 Amerinum
 14031 Calliandra
 14032 Jatropha
 14033 Cissus
 14034 Ipomoea hederacea
 14035 (verb.) erinbergii

habit
 semi-prostr. 2-3' l.
 t. 20' spread. plant. dense yellow
 semi-prostr. 2-3' l.
 creep. shrub. 1-2' h.
 S. 10-12' S. white
 woody vine F. w. and deep purple
 coarse h. 2-3' F. deep purple
 slender s. 4-5' F. rich purple
 h. F. white
 h. F.
 shrub 6-10'
 shrub 2-4' F. white
 tree 15-20' flowering branches deeply
 shrub 7-10' fruit green
 woody vine flower white
 shrub 10-12' F. deep lavender
 tree 15-20' F. yellow
 h. F. yellow
 woody vine F. green
 H. semi-scandent F. orange
 T. 20' F. w.
 H. scandent F. w.
 T. 20-30 spread. crown
 H. coarse 10' F. red
 T. 15-20' F. w.
 T. 15-20'
 S. 5-15' F. y.
 H. 2-3' F. w.
 T. low
 T. 20-30'
 S. 10-15' F. yellow-g.
 vine F. greenish
 vine F. cor. w. purple
 H. F. l.

Oct. 31

habitat
coastal flats

location
Manga L.

alt.

no. spec.
 photo.
 P. 2
 P. 3
 P. 4
 P. 5
 P. 6
 P. 7
 P. 8
 P. 9
 P. 10
 P. 11
 P. 12
 P. 13
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 P. 90
 P. 91
 P. 92
 P. 93
 P. 94
 P. 95
 P. 96
 P. 97
 P. 98
 P. 99
 P. 100

beach
 coastal ~~thicket~~

cor. deep purple
paler at center

beach
 mangrove swamp

coastal thicket

coastal thicket

sandy roadside
 coastal thicket
 sandy roadside
 coastal thicket

roadside

coastal thicket

coastal flat

Nov. 2

in garden
 roadside clay soil base - La Popa

14036	<i>Tribulus terrestris</i> ^{maximus}	H. prostrate	F. Y.
14037	(comp.)	H. low 1-2'	F. head w.
14038	<i>Cassia</i>	S. creeping	F. Y.
14039	Cat <i>Kallstroemia</i>	S. 3-6'	F. w.
14040	<i>Cassia grandis</i>	H. semi-pros.	F. Y.
14041	<i>Trixis</i>	H. coarse very	F. salmon
14042	<i>Abutilon</i>	H. viscous	F. light b.
14043	<i>Priva Lappacea</i>	H. spreading	
14044	<i>Bulnesia arborea</i>	T. 20-30'	
14045	<i>Commelina elata</i>	H.	F. light b
14046	<i>Euphorbia hirta</i>	H.	F. 1 cm. wide
14047	<i>Mimosa</i>	S. semi-pros.	F. Y. 3.
14048	<i>Panicum barbinerve</i>	H. 50-80'	
14049	<i>Coussapoa</i>	T. vine, hanging.	F. w.
14050	<i>Cissampelos</i>		
14050	<i>Cissampelos</i>		
14051	<i>Panicum</i>	H. 5-15'	Fr. dark
14052	<i>Hibiscus</i>	S. 20'	F. petals long
14053	<i>Tabernaemontana</i>	H.	F. w.
14054	<i>Rivina humilis</i>	H.	F. w.
14055	<i>Alternanthera</i>	H. woody, low.	F. w.
14056	(labiales)	H.	F. w.
14057	<i>Stemodia</i> laevis <i>sauvagesia erecta</i>	H.	F. w.
14058	<i>Heliotropium arborescens</i>	H. coarse	F. w.
14059	<i>Indigofera anil</i>	H. 1 1/2-2'	F. pinkish
14060	<i>Solanum nigrum</i>	H. low	F. cor. w.
14061	<i>Manettia</i>	S. 1-3'	F. w.
14062	<i>Sterculia</i>	H.	F. rich p.
14063	<i>Spermucoce</i>	H. 1 1/2-2'	F. w.
14064	<i>Lycopersicon esculentum</i>	H.	F. cor. w. - an.
14065	<i>Annanthus</i>	H.	F. straw col.
14066	<i>Commelina</i>	H.	F. light b.
14067	<i>Stylosanthes</i>	H. pros.	F. Y.
14068	<i>Calliandra</i>	T. 12-15'	F. stam. pale
14069	<i>Mimosa</i>	S. semi-pros.	
14070	<i>Ayenia</i>	F. H. slender	F. Y.

14050		H.	Fr. dark
14051	Panicum	S. 5-15'	F. petals longish
14052	Hibiscus	T. 20'	F. w.
14053	Tabernaemontana	H.	F. w.
14054	Rivina humilis	H.	F. w.
14055	Alternanthera	H. woody, low.	F. W.
14056	(labratae)	H.	F. w.
14057	Stenosia Sauvagesia erecta	H.	F. w.
14058	Heliotropium arborescens	H.	F. w.
14059	Indigofera anil	H. coarse	F. pinkish
14060	Solanum nigrum	H. 1½-2'	F. cor. w.
14061	Mauettia	H. low	F. yellow y.
14062	Sterculia	S. 1-3'	F. w.
14063	Spermocoe	H.	F. rich p.
14064	Lycopersicon esculentum	H. 1½-2'	F. w.
14065	Amaranthus	H.	F. cor. w. - an.
14066	Commelina	H.	F. straw col.
14067	Stylosanthes	H.	F. light b.
14068	Calliandra	H. proc.	F. Y.
14069	Mimosa	T. 12-15'	F. stam. pale
14070	Azara	S. semi-proc. 2-3' l.	F.
		F. H. slender	F. Y.

Nov.	2	roadside clay	base - La Popa
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La Popa

S. 12

50-175m

P₂ 6-7

P. 28-9

- 14071 *Cassia ligustrina*
 14072 (*Rutaceae*) "tortuoso cimarón"
 14073 *Euphorbia brasiliensis*
 14074 *Panicum*
 14075 *Acalypha*
 14076
 14077 *Petiveria alliacea*
 14078 *Mimosa*
 14079 (*Bignoniaceae*)
 14080 *Solanum*
 14081 *Euphorbia lasiocarpa*
 14082 ~~Lasiacis~~
 14083
 14084 *Mimosa mangrove*
 14085 *Bauhinia*
 14086
 14087 (*Bignoniaceae*)
 14088 *Cracca*
 14089 *Cassia*
 14090 ~~Mimosa~~ *Acacia*
 14091 ~~Le~~ *Meibomia*
 14092 *Coccolobis uvifera*
 14093 *Jacquinia*
 14094 *Platyphra*
 14095 ~~Sorbaria~~
 14096 *Cenchrus*
 14097 *Eragrostis*
 14098 ~~At~~ *Funistylis spathacea*
 14099 *Funistylis castanea*
 14100 *Cracca cinerea*
 14101 *Cocuo*
 14102 *Cyperus nutisii*
 14103 *Eragrostis*
 14104 *Cucumis*
 14105 *Cyperus*

T. 12-15'
 T. 10-15'
 H.
 H.
 A.
 H. 2-4'
 H.
 T. 10-15'
 vine W.
 H.
 H.
 vine
 S. 8-12'
~~F. 8-15'~~ S. 4-6'
 S. 10-15'
 vine W.
 H.
 vine W.
 T. 10-15'
 T. 8-15'
 H.
 S. 5-10'
 S. low.
 S. 5-15'
 S. or small T.
 H.
 H. proleferous grass.
 H.
 H.
 H. 1-2'
 T. 20-70' leaves 10-20'
 H.
 H.
 H.
 H.

Fr. ovoid ± 9" l.
 Fr. green.
 F. w.

F. w. greenish
 F. cream w.

F. pur.
 F. cor. w.
 F. sta. y.
 F. w.

Fr. red.
 F. stamens p.

F. w.

F. y.

F. y.

F. p. to pur

F. y.

F. y.

F. purish

F. w.

F. w. pet. w.

F. sep. y.

F. y.

F. pur.

F. y.

F. y. Fr. obov.

Nov. 2 Woods, etc. La Popa
 halves of fruit used for carrying water

Nov. 3. sandy coastal strip. "Boca Grande"

300 m
 150 m
 P. 15, 16
 P. 17
 P. 18, 19

14106	Capparis Croton	S. low, branching	F. w.
14107	Euphorbia	H. branching at base	F. greenish w.
14108	Catopsis	H. coarse	F. sepals w.
14109	Cassia tormentosa	S. 4-6'	F. pet. w. deep p. dist.
14110	Phaseolus	vine, creeping in sand	F. Y.
14111	Berria	S. 5-20'	F. purp.
14112	Caesalpinia	S. low	F. cor. o. l. auth. pur.
14113	Sporaea pes-caprae	H. rampant vine	F. Y.
14114	Alternanthera	H. 2-4'	F. pink
14115	Weinmannia	T. 10-12'	F. w.
14116	Hyppocratia	woody vine	F. green g. inflor.
14117	Buxus	T. 15-20'	Fr. only
14118	Tillandsia "canilla" "pus"	E.H.	
14119	Cuculus	H.	
14120	Quamoclit "enredadera"	vine	F. scarlet
14121	grass	H. dense clumps.	
14122	Sporobolus	H.	
14123	Cracca	vine W	F. p.
14124	Cardiospermum helicalabum	vine W	F. w.
14125	Mimosa mangensis	S. 2-3' erect	F. etc. p-w.
14126	Lasiacis	vine	F. g.
14127	escoba	H. succulent	F. r.
14128	Sida "cortiza barboza"	H.	F. pale y
14129	Ilex	S. 4-10'	Fr. w.
14130	Pectis	H. 2-3'	invol. pur.
14131	Leucaena	T. 15-20'	Fl. w.
14132	Sporaea	vine	F. cor. w. purp. dist.
14133	(ly.)	H. 2-2 1/2'	F. purp. l.
14134	Leucaena	H. succulent	F. pink
14135	Mimosa Acacia	T. 12'	
14136	Digitalis	H.	
14137	Evolvulus mamulariaefolia	H. pro.	F. sky b.
14138	Sporaea	vine	F. w.
14139	Cassia Aeschynomene	H. unbranched, 2-3'	F. Y.
14140	Acacia	T. 10-15'	

3
Nov. 2 sandy coastal strip Boca Grande
Nov. 3 sandy beach Tierrabomba I.
4

coastal thicket

edge of mangrove swamp
coastal thick et

14141	Mimosa	H. subhirscent 1-4'	F.p.
14142	Scayos	vine	
14143	Phaseolus	vine	F.p.
14144		H. succulent	
14145	Hibiscus	S.	F. act. p.
14146	Spigelia	H.	F.w.
14147		agave - sub. salt water	
14148	Justicia carthagenensis	H. often woody below	F.b.
14149	comp.	H. 2-4'	F.w.
14150	Securidaca	S. 8'	
14151	Euphorbia hirta	H.	F. greenish w.
14152		T. 15'	
14153	Ilex	S. 2-6'	Fr. w.
14154	"Marianillo" Hippomane	T. 15-30' spreading crown	
14155	Sida	H.	F.w.
14156	Portulaca pilosa	Succulent herb	Fy
14157	"Oleracea" "verde largo"	"	Fy
14158	Cyperus laevigatus	H. in tufts	
14159	Sterculia	Suffrutescent herb 1.5-3'	Frick pi
14160	Crotalaria "campana amarilla"	H. 2-3'	Fy
14161	"bedunito"	Low s. $\pm 2'$	Fy; fr. red
14162	Momordica charantia	vine	F.y. Fr. O. seeds
14163	Lycium	S. semi-sean.	Fr. deep pur.
14164	Passiflora suberosa	vine I woody	Fr. bl. lustrous
14165	Lycium	S. semi-sean.	ach
14166	Tournefortia	S. $\pm 8'$ branches often becom. sean.	F.w.
14167	Hemelia pateris	S. $\pm 5'$	Fr. Fr. deep
14168	Passiflora suberosa	vine	F. gr. w.
14169	Melanthra	H. coarse	F.y.
14170	Trapa	vine, slender	F.g.
14171	Lioscorea Guacablanco	vine I w.	F. gr. w.
14172	Banana	H.	F.w.
14173	(eq.)	vine w.	
14174	Acalypha	S. $\pm 3'$	F. gr.
14175	Anoda	H. 1-2'	F. b.

[illegible]

14176	<i>Clatium carthaginense</i>	vine, H.	F. y.
14177	<i>Waltheria</i>	H.	F. y.
14178	<i>Cordia sebestena</i>	T. 10-15'	F. w.
14179	<i>Paucium tricanthium</i>	H.	
14180	<i>Boraria</i>	H. semi pro.	F. w.
14181	<i>Acalypha</i>	H.	
14182	<i>Croton</i> "arbol de nieve"	H. woody at base	F. pale y.
14183	<i>Rivina humilis</i>	H. 2'	F. w.
14184	<i>Paspalum</i>	H. dense clumps, root. at nodes	
14185	<i>Pectus</i> Evol.	H.	
14186	<i>Elytraria</i>	H.	F. lar.
14187	<i>Hibiscus</i>	S.	F. r.
14188	<i>Cassia</i>	H. erect, simple	F. y.
14189	<i>Cyperus</i>	H. 2-3'	
14190	<i>Syntherisma</i>	H.	
14191	<i>Rauwolfia</i>	S. 15'	F. r.
14192	<i>Celtis</i>	T. 15-20'	
14193	<i>Piper nutida</i>	S. 6'	Spikes w.
14194	<i>Piper occidentale</i>	S. 6'	Spikes w.
14195	<i>Cassia</i>	H.	F. y.
14196	<i>Valerianodes</i>	H. 2-3'	F. deep pur. paler at center
14197	<i>Wissadula</i>	H. erect, few-branched	F. gr. w.
14198		S. 10-12'	F. cor. w. ant. lobes
14199	<i>Adenocalymna</i> "madragola" byzico calanichum	woody vine	F. w. cor. lobes
14200	<i>Salbergia</i>	S. 16'	F. pur. turning purple
14201	<i>Cardospermum</i> <i>Serjania</i>	woody vine	F. w.
14202	<i>Mimosa</i>	H. suffrutescent 2-2½'	
14203	<i>Stipa</i>	H.	
14204	<i>Cassia</i>	H.	F. y.
14205	<i>Solichia labell</i> arroyo cocoa	vine w.	F. w.
14206	<i>Calliandra</i>	T. 10-12'	F. p.
14207	<i>Gouania tomentosa</i>	vine w.	F. w.
14208	<i>Opuntia</i>	± 1' tall	
14209	<i>Candretum</i>	S. 8-12'	F. y.
14210	<i>Serjania</i>	woody vine	F. r.

Nov. 6 thickets along R.R. east of Turbaco

edge of thicket

14211	Acacia	S. $\pm 6'$	
14212	Ruellia	H. $1\frac{1}{2}$ - $2\frac{1}{2}'$	F. lav. p.
14213	Abutilon	H. $2-2\frac{1}{2}'$	F. y.
14214	Paricium ^{"cebollita"}	H. $3-5'$	
14215	Catesetum ^{"setobblita"}	E. H.	F. pet. y. sta. w.
14216	Alsine ^{evolubus}		
14217		vine H.	
14218	Bauhinia	S. $12-15'$	F. pet. w. pump. spotted within
14219	Heliotropium indicum	H. $1\frac{1}{2}-2'$	F. pale-p.b.
14220		T. $12-15'$ branches pendulous	
14221	Euphorbia	H. $1\frac{1}{2}-2'$ semi-succulent	F. w.
14222	Tillandsia	CH	
14223	Securidaca	H. $3-4'$	F. y.
14224	Solanum	S. sub-scan.	F. cor. w. ant. y.
14225	Croton	H. $3\frac{1}{2}-4'$ woody at base	F. w.
14226		S. $10-15'$	F. (note)
14227	Calliandra (leg.)	S. $3-6'$	F. sta. w.
14228	Ipomoea "campanita"	vine	F. w. prox.
14229	Cassia occidentalis "bichofango"	H. $2'$	F. p. dist.
14230	Ipomoea	vine	F. y. cor. p. dist. prox. paler dist.
14231	Calliandra "beranero"	S. $4-10'$	F. ant. w.
14232	Ipomoea meyeri	vine	F. cor. no prox. pur. dist.
14233	Indigophera "añil"	H. $2-3'$	F. p.
14234	Talinum "berdolaga"	H. succulent	F. light p.
14235	Bauhinia "bejuco cadena"	(T.) $12-20'$	F. w.
14236	Southanthus "cagapajarito"	S. parasitic	
14237	Mimosa pudica ^{serotoputa}	H. semi-pro. leaves sensitive	F. p.
14238	Alternanthera "mano de dios"	S. spreading $8-12'$	F. w. sta. w.
14239	Mimosa "beranero"	T. $9-12'$	F. cor. vio. sta. y.
14240	Solanum "oja de luna"	S. $7-10'$	F.
14241	Ipomoea "ayama"	vine	F. y.
14242	Securidaca? "botadeoro"	H. $2-3'$	F. y.
14243	Cecropia "guarumo"	T. $10-20'$ ants in trunk	
14244	Ipomoea "bulto" lila	vine ^{climbing on tops of trees}	F. rich p.
14245	Psychotria (snake antidote)	S. $7'$	

Edge of thicket

Nov. 7 R.R. tracks ^{west} ~~east~~ of Turbaco

Tomecilla.

clearing
edge of wood

east of Turbaco

clearing
woods

dense woods

P

14246	(orchid)	E.H.
14247	Cardiopermum	vine h. w.
14248	Serjania	vine H.
14249	Polynnia	"boten de oro" H. up to 7'
14250	Meibomia	"amor seco" H. 1 1/2 - 2 1/2'
14251	(rubiceae)	"ray muciela" S. 8-10'
14252	Caracha	"cinarron" H. semi-woody 4-5'
14253	Sonovia	"lejana de perro" vine
14254	Carica papaya	"papaya" T. 9-20'
14255		"caba" T. 20-50'
14256	Bignonia	"beyuco de agua" vine
14257	Erythrina	"bata" "pita" T. 20'
14258	(euphorb.)	H. slender much branched
14259	Bignonia	"beyuco de ojo" vine, w.
14260	Cayapana	"contra siempre" vine, h.
14261	Tillandsia	"civollote" E.H.
14262	Psychotria	"cebolleta" S. 7-8'
14263	Pellacourea	"coal" T. 8-12 20-30'
14264	Serjania	vine, w.
14265		"ojo de boey" vine, w.
14266	Acalypha	"flor de tierra" H. coarse
14267	Calliandra	S. 4-10'
14268	Piper	"cordoneillo" S. 6-9'
14269	Acalypha	S. 3-5'
14270	Aristolochia	"capitans" vine, h. lustrous
14271	Ipornea	vine, h.
14272	Synolobus	"beyuco corriente" vine, h.
14273	Thevetia	"tomatillo" S. 6-8'
14274	Cassia	S. 4-5'
14275	mos	
14276	Diacorea	Vine
14277	Tricus	vine, woody?
14278	Chenipodium ambrosioides	H.
14279	Argemone mexicana	H. 6"-2'
14280	Scoparia dulcis	H. 1-1 1/2'

F.w.
F.w. greenish
F. rayb. y

F.p.
F. pure w.
F. cor. w. Fr. r.

Fig. w.
F.w.

F. ~~staminate~~ deep pur. ~~fr. strongly depressed~~, globose, 12-ribbed
F. rich lav.
seeds r.

F. gr.

F. cal. g.
F. cor. g.

Fr. r.

F.w.
F.y.

F. yellowish g.
F. cor. pale p.
F. cor. grass g.
F.y.
F.y.

long. striped with br. pur., crop deep pur. outside
w. dist. yellowish gr. within
introus, corona deepo.

Nov. 8 Streets

Turbaco

14246
14247
14248
14249
14250
14251
14252
14253
14254
14255
14256
14257
14258
14259
14260
14261
14262
14263
14264
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14270
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14272
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14275
14276
14277
14278
14279
14280

14386	<i>Sesuvium</i>	"algodon"	S. low	act. prox yellowish	Nov. 10
14387	<i>Rhynchospora</i>		S. 5-6'	F. upper $\frac{2}{3}$ p.	
14388	<i>Calliandra</i>		S. 5-6'		Nov. 11
14389	<i>Amaranthus</i>		H. to 3 $\frac{1}{2}$ '	infl. g.	thicket
14390	<i>Boraria</i>		H.		edge of woods.
14391	(rub.)		S. 7-10' drooping branches	Fr. curved	
14392	Carica Carica	"papaya de montaña"	T. 7-8' leafy at summit	stem simple, F. racemes up to 4 cm. l.	
14393			V. woody		
14394	<i>Psychotria</i>		S. 6-8'		
14395	<i>Trema micranthum</i>		T. 12-15'		
14396			T. small		
14397	<i>Palicourea</i>		T. 12-20'		
14398	<i>Passiflora subpeltata</i>		V. herb.		
14399			T. 15-20'	F. Y. g.	
14400	<i>Sirjania</i>		V. herb.	F. w.	
14401			Palm 7' leaves arising at base		
14402			Palm petioles 3 $\frac{1}{2}$ '		
14403	<i>Solanum</i>		S. 4-5'	cor. g. lobes reflex. F. stem w. Fr. light r.	
14404	moss		on decaying log.		
14405	moss		on soil		
14406			T. 40-50'	Fr. bl. lustrous	
14407	<i>Solanum</i>		V. herb.	Fr. light r.	
14408	<i>Panicum trichoides</i>		H. repeat at base		
14409	<i>Stipa</i>		H.		field
14410	<i>Hyloteris</i>		cactus $\pm 2'$		dense woods
14411	<i>Epiphyllum</i>		Cac. in trees		
14412			P. much-branched		
14413	<i>Piper</i>		S. 5-10' stem slender		
14414			T. 12-15'		
14415	<i>Passiflora coriacea</i>	"bejuco de blalijito"	V. herb.	F. sep. gr. without w. within	
14416			S. 5' leafy at summit	F. corona yellowish	
14417	<i>Phylodeudron</i>		V. scandent on trees		
14418	<i>Coccoloba</i>	"huita de playa"	T. 20-25'		field
14419	<i>Cesalpinia</i>	"acacia"	T. 50-60' crown wide spreading		
14420	<i>Struthanthus</i>		T. 20-60' trunk 2 $\frac{1}{2}$ diam.		
			E. H. on Acacia		

Turbaco

Torreilla

field
dense woods

field

... H. 1

- 14421 *Bactris minor* "lata"
 14422 *Bursera*
 14423 *Mucuna*
 14424 *Stigmaphyllon*
 14425 *Abutilon*
 14426 *Triumfetta*
 14427 *Mimosa*
 14428 *Bauhinia*
 14429 *Meibomia*
 14430 *Sponsea*
 14431 *Calliandra*
 14432 *Jacquemontia*
 14433 *Acrostichum aureum*
 14434 *Cissampelos*
 14435
 14436 *Baccharis trinervia*
 14437 *Zinnia*
 14438 *Acacia*
 14439 *Serjania*
 14440 *Hibiscus*
 14441 *Bauhinia*
 14442 *Acacia*
 14443 *Mikania*
 14444
 14445 *Achris*
 14446 *Alternanthera*
 14447 *Sponsea carnea*
 14448 *Cracca*
 14449 *Cyperus ligularis*
 14450 *Simus*
 14451 *Sternodia*
 14452 *Sichos*
 14453 *Acacia*
 14454 *Solanum*
 14455 *Capparis*

- P. trunk 3-5' fruit "small"
 fr. 1 1/2 - 2 1/2'
 T. 10-15' branches droop.
 V. herb. F. stan. w. drup. pur.
 V. herb. F. pet. y.
 H. 2-4' F. y.
 H. 2-3'
 H. 2-3' F. sta. p.
 S. 7-12' branches droop.
 H. semi-scandent. F. stan. + uric. pur.
 H. viscous F. keel lilac
 V. herb. F. w.
 S. 8-12'
 V. herb. F. light violet
 F.
 V. herb. much-branched
 S. 8-12' becoming scan. bl. to w.
 S.
 V. herb. F. cor. w. gr. tinted without
 T. 10-20' F. corona ivory w. ant. pur. b. stig. g.
 V. herb. F. pet. cream
 S. 8-12' F. fila. cream, style pur. b.
 S. 4-8' F. pet. yellow. tinged at center
 T. 15-20' F. pet. + sta. yellowish
 V. herb. F. ant. grass g. involucre g. rays light p. to w. also sta.
 T. 10-15' F. pet. + fila. purple, ant. pale y.
 H. F. " sometimes w.
 H. fr. or. red.
 H. 3-4' F. sep. w. ant. y.
 V. herb. F. purp.
 S. 5-7' F. pet. R. purp.
 H.
 H. proo, fleshy F. p.
 H. Coarse 2-3 1/2' F. cor. w.
 H. repent F. cor. y. Fr. g.
 S. 4-10'
 H. woody at base F. cor. w. pink maculate without. ant: y. proo cream diet.
 S. 2-4' much-branched at base

Nov. 12 thicket
 roadside

Turbaco
 between Tur. + Vol.

roadside thicket

in mud

Los Volcanes

Nov. 21

P. P. J. G.

P. G. I.

D. E. J. G.

Nov. 21.

- 14456 *Acacia* T. 10-20'
- 14457 *Cyperus virens* H.
- 14458 *Cyperus ferox* H.
- 14459 *Polypodium* Palm trunk 2-10', leaves 20', *stipe* 4-6'
- 14460 *Cyperus* F. at trunk of 14459
- 14461 *Cassia* H.
- 14462 *Zimbristylis* H. 3-6' F. y.
- 14463 *Securidaca* S. 10-15' sepals cream
pet. yellowish g.
- 14464 *Quamoclit* V. herb, twining
- 14465 *Beureria* T. 15-20' F. r.
- 14466 *Duranta* S. 6-10' Fr. o.
- 14467 *Latura* S. caly. purplish without g. within
cor. purp. without, yellowish g. within to white.
- 14468 H. coarse
- 14469 *Pilea microphylla* H.
- 14470 *Meibomia* "amor seco" H. 1-3' F. b.
- 14471 *Anona* "anón de verga" T. 15-20'
- 14472 *Olyra* H.
- 14473 *Ipomea* V. herb. twin. F. pale lav.
- 14474 *mos* on rocks
- 14475 "mamé" T. 60-75' Fr. edible
- 14476 *Dioscorea* H. herb. F. g.
- 14477 *Jatropha urens* "pringamora" H. 3-6' F. w.
- 14478 *Passiflora suberosa* V. herb. F. g.
- 14479 *Commelina* "süda con süda" H. F. peri. light b.
F. segments tan.
- 14480 *Cassia* "chilimeto" T. 20-25'
- 14481 *Acacia* "sacapedanda" J. sub-seam. to 10' F. said to be w. - common
- 14482 "guahapana" T. 20-35' F. sep. yellow outside, cream within } both fleshy Fr. edible, to 40 cm. l.
- 14483 "nispero" T. 40-50' F. pet. y. g. within
- 14484 "achote" T. 10-20' Fr. edible
- 14485 "caineto" T. 70-90' F. fil. y. at base
- 14486 "dousello" T. 50-60' Fr. edible 12 cm. diam.
- 14487 *Tecoma* T. 15-20' F. cor. y.
- 14488 *Cesalpinia* S. 4-8' F. pet. y.
- 14490 *algae*

marsh between Tur. + Los Volcanos.
circum. of stipe at base, 9" swamp.
mature fr. o.

marsh
field
in mud
roadside between Tur. + Vol.
thicket Turbaco
cultivated

Mar. 13
" within to white.

Mar. 14 thicket
woods s.e. of Turbaco

thicket

woods

thicket

roadside

thicket

roadside

thicket

clearing
ant. greyish p.

woods

in garden

Mar. 12 in mud & water of Los Volcanos

Ph.

P.

P. 4-6

P. 2 H-1

- 14526 *Selenicereus*
 14527 *Bignonia*
 14528 *Acacia*
 14529 *Tillandsia*
 14530 *Tillandsia*
 14531 *Metastelma*
 14532 *Jacquemontia*
 14533 *Lantana camara*
 14534 *Saracha* "aji picante"
 14535 *Scaevola*
 14536 *Bignonia*
 14537 *Metastelma*
 14538 *Turnera*
 14539 *Carnegiea*
 14540 *Solanum*
 14541 *Aristolochia*
 14542 *Phoradendron*
 14543 *Bauhinia*
 14544 *Veronica*
 14545 *Ipomoea*
 14546 *Comp.*
 14547 *Turneria* "olla de mono"
 14548 *Solanum*
 14549 *Jacquemontia*
 14550 *Malachra*
 14551 *Comp.*
 14552 *Bignonia*
 14553 "
 14554 "
 14555 " *simplicifolia*
 14556 *Oryza sativa*
 14557 *Solanum*
 14558 *Paspalum*
 14559 *Aeschynomene*
 14560 *Mimosa*

- ^{subcaudat}
 Succulent; on tree trunk
 V-woody
 T-12-20'
 H-Epiphy.
 H-Epiphyt-4'
 V-herb.
 V-herb.
 S-2-6'
 H coarse 2-4'
 S becoming scandent
 V-woody
 V-herb.
 H-woody at base
 succ. cactus 3-20'
 H coarse, woody
 at base 4-5'
 V-herb.
 Epiphyt. S.
 T-12-15'
 H-woody at base 2-3'
 V-twining
 H-coarse woody at base
 T
 H 2-3.5'
 V-twining
 H-coarse
 H- " 5' odor
 foliol
 V-woody
 V- "
 V- "
 V- "
 Dias 3'
 H coarse, woody
 at base
 H-2-3'
 erect 2-4'
 H stem viscous
 1.5-3' woody base
 H branched at
- Fr. green
 ael. part
 greenish-y
 F-purple (dry)
 P-gr.-w.
 C-wh.
 F-tube or
 lobes or.
 F-Cor. w., anthers purple
 F-st. ok color
 wings white
 F-calyc. tube green, lobes w.
 F-cor. y-g
 corolla ivory-w.
 F-Pet. y, base purple
 Calyx green, pink-fringed
 Plant bright green
 9 invol. red-purple
 Floret blue-purple
 F-Cor. rich pink, pale distal
 F-Cor. lavender
 Fr. obconic, wood used
 for rafters
 F-C. w. within, pink within
 F-Cor. light pink
 F-P. ex.
 Fr. base - pink, darker
 striped; anthers gr.
 F-Cor. y
 F-Cor. w, pink-tipped out
 F-Cor. rich pink (see note)
 F-Cor. y. anthers gr.
 F-Cor. light purp. anthers y
 F (see note)
 F-Pet. gr., stam. w.

Nov. 15 Thicket, northward from Arizona.

anthers y, prox., w. dist. Edge of corn field

In corn field
 Edge of cornfield
 In marsh

anthers y.

Pe-1

- 14596 Ipomoea
 14597 Utricularia
 14598 Sphenocarpus
 14599 algae
 14600
 14601 Acacia
 14602 Synandropsis
 14603 Sicyo
 14604 Eragrostis
 14605 Cyperus
 14606
 14607 Salvinia
 14608
 14609
 14610
 14611 Ipomoea
 14612 Fimbristylis
 14613 Castilleja
 14614 Cyperus
 14615 Sagittaria
 14616 Salvia
 14617 Jatropha gossypifolia
 14618 Leonotis
 14619 Alouanda
 14620 Solichos
 14621 Cassia
 14622 Bignonia
 14623 Glycerinae
 14624 Ipomoea
 14625 Trapezia
 14626 (leg.)
 14627 Cladonia
 14628 (rub.)
 14629 Dioscorea
 14630 Calliandra

- H. rooting in mud F. cor. rich p.
 H. 2-4' water
 H. floating F. cor. y.
 H. rooting in mud
 H. 2-4' water
 floating
 floating in algae
 S. 2-4' spreading branches often F. bil. p.
 trailing in water F. ant. y.
 H. coarse, branches trailing on surface.
 V. herb. Fr. very dark g. F. cor. y.
 H. as mud.
 H.
 H.
 floating
 T. 30-40' adven. roots from branches 2-10'.
 floating
 V. herb. F. stem, purp. prox. w. dist.
 V. herb. F. wings w. prox. purp. dist.
 V. herb. F. cor. w. prox. p. dist.
 H. in mud
 H. rooting in mud. leaves floating
 F. above surface
 H. rooting in mud, 1-2' water
 H. rooting in mud, leaves F. pet. w. sep. g.
 F. above water F. ant. y. bil. g.
 H. coarse 3-6' F. cor. y.
 H. coarse 3-5' F. cor. deep red, paler.
 H. coarse 3-7' F. cor. o.
 S. 5-10' milky juice. F. cor. rich purp.
 V. herb. F. cor. w.
 S. 5-12' F. cor. y.
 S. 5-12' F. cor. y.
 V. woody. F. cor. gr. prox. or. dist.
 V. herb. F. cor. purp. paler dist.
 V. herb. stem succ. Fr. seeds o.
 V. herb. F. stem. w. to pale y. 4-spirally cur.
 V. herb. F. style w. 6-8-spirally coiled
 on turps
 S. branches divaricate
 S. 4-10'
 V. herb. turn. F. greenish w.
 S. 8-12' seeds alternately
 Fr. elevated in pod.

Nov. 16 swampy pond near Higue

edges of Higue
F. cor. w.
F. sta. purp.

muddy pond between Sop. + Arenal
thicket

muddy pond

roadside thicket

Nov. 18
thickets
F. cor. purp. paler prox. Keel w.
wings

between Tur. and
Torrecilla

200-
500'

P. d-5

- 14631 *Scica*
14632 *Bauhinia*
14633 *Lalechampsia*
14634 *Bignonia*
14635 *Meibomia*
14636 ~~*Sauveglia*~~ *Sauveglia*
14637 *Senjania*
14638 *Oporcalina*
14639 ~~*Agrostis*~~ *Syathesisma*
14640 *Paopium*
14641 *Meibomia*
14642 *Tripsacum*
14643 *Eclides*
14644 *Quamochit*
14645 *Sisyo*
14646 *Crechites*
14647 *Solanum*
14648 *Peperomia*
14649 *Cyperus*
14650 *Passiflora biflora*
14651 *Calliandra*
14652 moss
14653 (rub.)
14654 *Iponoea*
14655 *Piscocora*
14656 *Anthurium*
14657 —
14658 *Asplenium*
14659 ~~*Anthurium*~~ —
14660 *Anthurium*
14661 *Anthurium*
14662 *Bradberia*
14663 *Rhus*
14664 *Acalypha*
14665 *Vernonia*

- T. 40-70' F. pet. w. 1 cm. w. side.
S. slender with F. sta. light gr. w.
S. sub. scan. br. F. pet. w.
V. herb. F. bracts pale g.
V. herb. w. F. col. tube g. lobes w.
V. herb. F. stan. & unigs purp. dist.
H. coarse, few F. keel. w. plant urseous
H. branched F. pet. pinkish, w.
V. woody, climbing F. pet. pure. w.
V. in tops of trees F. cor. salmon col. dist. pale
V. herb. F. calyx. gr. procr, salmon dist.
H. repent. at base
H. repent. ~~at base~~
H. branched at base F. stan. & unigs -
H. branches recumbent F. keel. w.
H.
V. herb. F. cor. y. g.
V. herb. F. cor. r.
V. herb. repent. F. cor. y.
V. rooting at nodes F. invol. g. rays light y.
H. coarse F. cor. w. ant. w.
H. 4-5' F. cor. w. ant. w.
H. coarse F. cor. w. ant. w.
H. 2-4' F. cor. w. ant. w.
H. succ. repent in detritus
H. in crevices of limestone rocks.
H.
V. herb.
S. 3-6' F. sta. w. (sta. divergent
in late afternoon)
on soil, side of ditch
T. 30-40' Fr. mid with milky sap.
V. herb. procr. F. w.
V. in grasses F. w.
V. herb. drooping F. perianth l.
V. herb. from trees F. sta. w. to green and
H. leaves to 4' l. 1 1/2' w.
H. in crown.
T. 10-15' trunk
6" diam.
F.
H. repent at base
V. climbing on
tree trunks
V. climbing "
V. herb. low. F. stan. w. without w. cor.
F. unigs w. purp. at apex.
T. 20-30' F. pet. w.
S. 4-6' simple stem F. yellowish g.
H. coarse F. invol. deep r. purp.
H. 4-7' F. deep purp. cor. sta. w.

Mar. 17 thickets between Tur. & Torrecillo

W. Mex.

try. poor. outside. inside: ^{duff} salmon first quarter y. second quarter,
lustrous salmon 3rd quarter y. poor.
roadside

privat pers.

limestone rocks, edge of woods

edge of woods.
thickets

edge of woods.

7 arecillo

pump. dotted, fleshy
limestone rocks in dense woods
limestone soil " " "

thin rich purp. at center → field
Kef. v. 19
Nov. ~~18~~ edge of woods
thicket
paler purp.

Tarrecillo

- 14666 (Comp.)
14667 Solanum
14668 Tommelfortia
14669 (malpigh)
14670 Costus
14671 (hepatic)
14672 Sterculia "aclu
14673 (rub.)
14674 ~~Lichen~~ —
14675 Lichen
14676 moss
14677 Cyclopeltis
14678 (apoc.)
14679 (euphorb.)
14680
14681 Lasiacis
14682 Pluniveria
14683 Wissadula
14684 Hioscorea
14685 Solanum
14686 Cassia
14687 Stachys "ba
14688 Leonurus
14689 (malpigh.)
14690 Pilea bernierioides
14691 Ipomea carnea
14692 Bauhinia
14693 Ipomea
14694 Eupatorium
14695 Halbergia
14696 Amyris
14697
14698
14699 Eupatorium
14700 Acacia

H. coarse invol light g. rays. w. ^{style} pale
H. 6-10' heads w. ~~sub~~ ^{pl} fl. g. w.
S. 6-9' F. cor. w. ant. y.
S. branches ~~sub~~ F. cor. tube g. lobes m.
S. sub-scan to y' l. F. pet. y.
S. 4-8' branches F. Fr. with p. wings
H. coarse F. lvs to p. prox
H. 2-4' F. g. dist, elliptical

on tree trunks
" T. 20-40' med. (spec. from cut
apparently T. size (branches on ground) Fr. r.
~~on tree~~ T. 40-60'

on tree trunks
on limestone rocks

F. fronds to 5' l. cor. tube y. g.
 Y. herb. turn. F. lobes w.
 T. 30-40, Fr. 3-celled
 T. or S. (spec. from broken branches)

V. herb.

S. 4-7' F cor. pale y.
H. coarse 2-4' pet. + sta. o.y.
stem erect

V. herb. ~~fr.~~ dependent fr. branch es
S 5-8' F cor. w. ant. y.

T. 10-12' at top slender, bran. F. $6\frac{1}{2}$ cm. wide
pet. y

H. 1-2' brandish. tube & upper lip p.
H. 2-5' F. coarse lower lip pump.

S. 4-8' F. Pet. y.

H. in crevices of limestone rocks
stem filiform. semi-pros

V. herb. F. pur.
S. 5-10' F. 4^{pet.} pur w.
F. 5th w. streaked with de

V. herb. F
V. somewhat F ends greenish

V. Wooday
S. 5-7'
F. pur.
5 sepals

drooping *F. grisea* *g.*

floating
H coarse, much branched F. wood

S. or T. 8-15' entire flower ~~pink~~
pure w.

Mar. ¹⁹~~18~~ thickets

Torrecillo

Larva w. peric. r.
coriaceous. limestone soil in dense woods

Fr. r.

Mar. 20 thicket

n. of Turbaco

roadside

Nov. 21 in mud
sp.

Los Volcanes

Nov. 22 thickets

n. of Turbaco

reflected

lighter. darker tips. small pond Nov. 23 thickets along river,
w. Mar. 23 Calauas

22m.

P. K. 3.

P. K. 4

form infected with *Bursinea incoerata* (described as
Cissua sieyoides L. *Spondylanthus aphylla* Presl

14701	<i>Solanum</i>	H. 4-6'	coarse, woody at base	F. cor. w. pinkish
14702	<i>Stacya</i>	H. 2-4'	coarse, few-bran.	F. tinged with red
14703	<i>Artidaphne</i>	E.H. succulent		F. cor. light b.
14704	<i>Vitis triloba</i>	V. herb.		F. buds g.
14705	<i>Passiflora hispida</i>	V. herb.		F. y.g.
14706	<i>Mimosa "trupilla"</i>	S. 8-15'		F. fr. gn. w. sta. pi. w.
14707	<i>Cordia "ivita"</i>	S. T. 6-20'		F. cor. cream w.
14708	<i>Eumastrium</i>	V. herb. sup.	milky	F. cor. light g. without
14709	<i>Convolvulus</i>	V. subterrestrial		F. w. within
14710	<i>Milcania</i>	V. herb.		F. cor. w.
14711	<i>Licliptera</i>	H. 2-4'	sandwich isles	F. invol. light g. paler
14712	<i>Croeca</i>	H. 2-4'		F. dist. flowers w.
14713	<i>Spongea polyanthes</i>	V. herb. twin.		F. cor. pur. paler without
14714	<i>(small)</i>	H. 4-6'		F. stan. g. y. without p. ting.
14715	<i>Tuffa</i>	V. herb.		F. wings g. y. keel w.
14716	<i>(comp.)</i>	H. 1-3'		F. cor. y.
14717	<i>Paspalum</i>	H. coarse 1-3'		F. pet. fine w. prophylls
14718	<i>Rianthera</i>	H. much branched		F. cor. gr. w. without
14719	<i>Tuffa</i>	H. to 3'		F. g. y. g. dist. within
14720	<i>Petunia</i>	V. herb.		F. cor. y.
14721	<i>Brachena</i>	S. 4-6'		F. invol. g. flowers w.
14722	<i>Talinum</i>	V. herb. twin.		F. cor. p. w.
14723	<i>Melia ayederach</i>	H. T. 20-30'		F. cor. y.
14724	<i>Alternanthera ficoidea</i>	H. pros.		F. cor. w.
14725	<i>Ceiba pentandra "ceiba blanca"</i>	H. 80-150'		F. aut. y.
14726	<i>Canna</i>	H. 4-10' leaves		F. stan. w. p. ting. without
14727	<i>Lycopodium</i>	H. to 4'		F. pur. within
14728	<i>Aegiphila</i>	F.		F. pet. p.
14729	<i>Polypodium</i>	F. in crotch		F. pet. w. ting. with lvs
14730	<i>Gatrophia</i>	V. herb. coarse H		F. g. to w.
14731	<i>Piper</i>	H. 5-8'		F. invol. perianth yellowish
14732	<i>Passiflora</i>	H. 2-4'		F. invol. g. to b.
14733	<i>Calathea</i>	V. herb. w. leaves		F. perianth y.
14734		H. 4-10' to 5'		
14735				

aut. y. prox. w. dist. Mar. 23 thickets along River - Calaman

leaves used to scrub panels
corona w. lustrous

aut. b. upper lip transversely w.-toined at dentige.
within

sta. y. Nov. 24 thickets - w. of Calaman
5-red-striped box. corona. g. p.

in ditch

thickets

wings w. pur. tipped keel w.
Mar. 24 6 thickets
column low. to deep pur. bristly

El Banco

Nov. 26 Riverside
Nov. 28 thicket along stream
Samarra (Magd. Dept.)
Puerto Wilches 105 m.

- 14736 *Bilia*
 14737 *Cestus*
 14738 *Sichyas*
 14739 *Passiflora vitifolia*
 14740
 14741 *Solanum*
 14742 *Ussus?*
 14743
 14744
 14745
 14746 *Clavija*
 14747
 14748 moss
 14749 *Bactris* "albarica"
 14750 *Adiantum*
 14751 *Lycopodium*
 14752 *Anthurium*
 14753 *Phaseolus*
 14754 *Nephrolepis*
 14755
 14756 "siam" *Jatropha utilis* "yucha"
 14757 (amarant)
 14758 *Calliandra*
 14759 *Meibomia*
 14760 *Atelaphyllus*
 14761 *Phyllanthus*
 14762 *Calathea*
 14763 *Richardsonia* rub.
 14764
 14765 *Cyperus* *perax*
 14766 *Dictyophora*
 14767 *Melastoma*
 14768 *Solanum*
 14770 *Lestrum*

- H. 4-8' leaves to 3' F. invol. g. to r. per. r.
 H. 10-20' F. invol. g. pet. w. fr. p. dist.
 Y. herb. F. tub. Fr. dark g.
 Y. herb. F. diller. elsewhere.
 H. H. 1-3' spread. F. cal. g. pet. w. sty. y.
 Y. herb. F. pedicel, cal. cor. red. covary. fily.
 H.
 H. 15-20' erect, slender T. trunk 2" diam. Fr. g. pedicel r.
 T. 15' Fr. g.
 H.
 on decaying wood
 P.
 F.
 F. succ. ep. on tree trunk Spils brownish
 V. succ. ep. on tree trunk F. pet. cream vv.
 H. pros. F. on trunk of 14754.
 F. on trunk of 14754.
 H. trunk 6-10' leaves 10-15'
 P. coarse
 H. coarse F. per. pale g. streaked faintly with r.
 V. herb. w. F. cor. r. ovary g. with red streaks, style & stig. vv.
 T. semi-pros. F. pet. p. paler pros.
 H. semi-pros. F. pet. g. p. ant. b.
 V. woody F. per. g.
 H. erect, 4-6' F. bracts o, per. o.
 H. pros. F. cal. g. pet. w. Fr. b.
 V. woody F. cor. p.
 H. semi-pros. F. cor. p. w.
 H. up to 2' F. bracts g. cor. w. stig. pur.
 V. herb. F. cor. dark p. stig. pur.
 H. coarse, t. woody at base F. tr. p. w. ant. w. dist.
 S. drap. braki.

Nov. 28 thicket along stream P. Wl.

swampy jungle

thicket along stream

banks of stream

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- 14771 Solanum
 14772 Cyperus longulus
 14773 ~~Triantha~~
 14774 ~~Cestrum~~
 14775 Commelina
 14776 Bradberia
 14777 Physalis
 14778 Ipomoea polyarrhiza
 14779 Jussiaea
 14780 Paspalum
 14781 Utricularia
 14782 Cassia
 14783 Cyperus diffusus
 14784 (amarant.)
 14785 Sarcocolla
 14786 grass
 14787 Maranta
 14788 Mimosa
 14789 Salicornia
 14790 Sterculia
 14791 Ceratopteris
 14792 Rhipidophora corymbosa
 14793 Ulex nodosus
 14794 Hyptis
 14795 Rhynchosia
 14796 Abutilon
 14797 Fimbristylis
 14798 Mimosa
 14799 Piper
 14800 Passiflora guayanaeifolia
 14801 Polygonum
 14802 Hiraea
 14803 Eupatorium odoratum
 14804 Acacia
 14805 Oldenlandia

- S. sub-scand.
 H.
 H. erect, bran. f. ludo gr. w.
 S. scand. Fr. g.
 H. $\pm 2'$ F. oper. p. w.
 V. herb. F. stan. w. without, deep p. in
 F. pur. stripe near center
 H. F. cor. gr. y. purp. spotted
 at base in
 V. herb. F. cor. y.
 H. coarse F. pet. y.
 H.
 H. floating F. cor. y.
 S. 7-10' thick- F. pet. y.
 H. damp soil
 S. 8-12'
 H. 3-4' repeat at base
 H. 6-8'
 H. coarse f. cor. bl. p.
 H. 4-6' f. sta. w.
 H. 1-2' semi-proc.
 floating on surface
 H. 2-3' F. pet. rich p.
 rooting in mud
 H. coarse
 H. 3-5' f. cor. light b.
 H. sub-proc. F. cor. light b.
 H.
 H. coarse, woody f. pet. pale y.
 H. at base
 H. in sandy soil
 H. somewhat, F. sta. w.
 H. woody 2-8' F. spikes w.
 S. 2-3' f. spikes w.
 V. herb. F. bracts light g. free to base
 F. all fl. parts w. except g. sepal arm + stig. other descr.
 H. F. w. on sheet
 S. 3-5' F. pet. y. Fr. light r.
 S. 5-8' F. bracts g. darker dist.
 S. 7-10' F. cor. red
 F. sta. w.
 H. proc. F. cor. light b.

Nov. 28 banks of stream

P. W.

at center thickets along river
 wings pale p. keel w.

in ditch
 thickets along r. clearing
 in swampy marsh
 thickets along r.
 ditch
 thickets along r.
 in marsh

clearing
 in marsh

clearing marsh
 clearing

damp thicket
 in marshy land
 other descr. on sheet
 g. sepal arm + stig. thickets, climbing over
 in marshy land
 low bushes

marshy thicket

along R.R.

- 14806 *Nyctis*
 14807 *Bidens primatifida*
 14808 palm
 14809 palm
 14810 *Hibiscus*
 14811 *Passiflora curviculata*
 14812 *Ryncospora globosa*
 14813 grass
 14814 *Veronica schultesia*
 14815 *Tournefortia canara*
 14816 leg.
 14817 *Souania*
 14818 amaranth.
 14819 *Pityrogramma calomelana*
 14820
 14821 *Castilia*
 14822 *Pourouma* "lechero"
 14823 *Passiflora quadrangulata*
 14824 *Cordia*
 14825 *Eragrostis*
 14826 *Urena lobata*
 14827 *Meibomia*
 14828 *Zornia*
 14829 *Cyperus matsii*
 14830 *Sellaginella*
 14831 *Salpichlaena volubilis*
 14832 *Phyllodesandra*
 14833 *Adiantum*
 14834 (velas)
 14835 *Miconia*
 14836 *Alsophila blechnoides*
 14837 *Lindsaea lancea*
 14838 *Trichomanes pinnatum*
 14839 moss.
 14840 (rub.)

- H. 3-4' F. cor. bl. w.
 H. 12' F. rays, light y.
 P. trunk 25' 2 1/2" diam. stipe 3-3 1/2'
 P. trunk 12' very spiny. frond: stipe 3'
 P. blade up to 16' trunk 3-4" diam.
 H. 12' F. light y. next, light
 M. herb.
 H.
 H. rooting in F. cor. p. l.
 H. low, with liab. F. cor. light r.
 S. 2' branches
 V. herb. high, stem red. purpl. at center in,
 V. climbing F. unig. + keel purp.
 V. herb. F. pet. w.
 H. proo. branches F. greenish
 H. close to ground
 F.
 S. 8-10' F. buds purple
 H. rooting in mud, water 2' deep F. pet. w.
 H. leaves floating 2" diam.
 T. 4-12' leafy only
 T. at summit. stem simple, straight
 V. herb. much main stem 1 1/2" diam.
 S. 6-8' bran. F. cal. light g.
 H.
 H. coarse, woody F. pet. p. gynoph. r.
 H. at base, 4-8'
 H. proo. F. pet. b.
 H. proo. F. pet. y.
 H.
 F.
 F. twining around
 F. small trees, etc.
 V. climbing tree, F. spikes light g.
 V. trunk
 F.
 H. F. pet. & sta. w.
 S. 3-8' F. pet. + sta. w.
 F. bonds in a crown Fr. b.
 F.
 F.
 on decaying wood
 S. 4-8' F. cor. apparent. blue out.

Nov. 28 in marshy land
 clearing
 jungle

P. W.

p. in upper half. in marshy land

clearing

in marshy land

red purp.

edge of woods

, forming dense mass.
 clearing.

jungle
 small pond
 woods

Nov. 29 thicket

Station "Kilometer 16"
 P. W. to P. Santos

110-115m.

clearing

woods

dense woods

densely forested stream banks

dense woods

stream banks

dense woods

P. L. 6

- 14841 Bilhai
 14842 Rhynchospora
 14843 Sclaginella
 14844 Cryptocarya
 14845 palm
 14846 Miconia
 14847 Ochrosia
 14848 Miconia
 14849 Cordia (?)
 14850 grass
 14851 Acacia
 14852 Usinia
 14853 Manettia
 14854 Solanum
 14855 Miconia
 14856 Renanthera
 14857 Hirtella
 14858 Hyptis
 14859 grass
 14860 Clephantopsis
 14861 Ranunculus
 14862 moss
 14863 Lindsaya
 14864 moss
 14865 hepatic
 14866 Carlodora
 14867 ~~Sclaginella~~ Trichomanes
 14868 Polypodium
 14869 Carlodora
 14870 Miconia
 14871 moss
 14872 Sclaginella
 14873 Lindsaya
 14874 moss
 14875 Piper

- H. 2-4' erect F. bracts: prox. y. g. at mid-rib, elsewhere w.
 H.
 F.
 H. stipe 2 1/2' l. frond 4-6' l.
 P. trunk 30-40' h. f. pet. p. w.
 S. 4-8' stem simple, erect, 3-7' ± 1/2" diam.
 H. leaves + flower spikes in crown
 S. 4-8' stem F. cor. light p. style w.
 S. slender F. Fr. b. style w.
 T. 12-20'
 T. 15-25' trunk droop.
 S. subscand. F. cor. w. Fr. shiny
 S. 5-8' Fr. light r.
 H. stem 4-7' Fr. deep pur. pulp s
 V. woody Fr. red-pur. cal. persis
 H. weak F. cor. w. upper lip spotted with lav. within
 H. coarse 5-7'
 H. coarse f. cor. rich pur.
 F.
 on decayed log
 F.
 on decayed wood
 on twig
 P. trunk 4-10' simple 1/2-2" diam
 H. leafy at summit
 H. v. app. to tree trunk
 F. scandent on tree trunk
 P. caudex subter
 P. leaves - petiole 4-5' f. 2 leaflets
 S. 4-8' leaves q. above, glossy below, r. pur. below, beery below.
 on twigs
 appressed to soil of bank.
 H.
 on soil
 S. 4-8' few-bran.

- keel r. g. at margin, dist. r. mid-rib, elsewhere w.
 Nov. 29 dense woods along stream
 dense woods
 at summit F. spathe light p, per. tube y. prox, r. b. dist, lobes r. prox, olive g. dist.
 clearing woods
 clearing
 d. w. along stream
 branch of inf. w. when young, becoming r.
 at summit dense woods
 along stream
 dense woods

- 14841
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- 14876 Piper
 14877 Phylodendron
 14878 ~~sedge?~~ - barbatol
 14879 moss
 14880 moss
 14881 Chelonanthus
 14882 Eupatorium
 14883 Anacardium occidentale
 14884 Moniera
 14885 Bixa orellana "bija"
 14886 Cayanus indicus
 14887 Psychotria
 14888 Abutilon
 14889 Bignonia
 14890 Visia
 14891 Toramurus
 14892 Cecropia
 14893 ~~Scutellaria~~ globosa
 14894 Ficus
 14895 Miconia
 14896 palm.
 14897 Cyperus
 14898 moss
 14899 Tripsacum
 14900 palm
 14901 Acalypha
 14902 Dichromena
 14903 Cleome
 14904 ~~(Cleome)~~
 14905
 14906 Cleome spinosa
 14907 ~~Croton~~
 14908 (rub.)
 14909 Ipomoea
 14910 Piper

S. 7-10'
 V. on tree trunks
 H. coarse, in clump.
 as decaying wood
 on decaying wood
 H. coarse F. cor. y. poor.
 S. 5-10' F. bracts w. bt. margin, g. n. at centre.
 T. 25-40' bray. F. pet. g. p. tinged, r. str. ifed withen.
 H. annual F. cor. w. - p. tinged cent.
 T. ± 15' Fr. seeds r. F. pet. w. sta. y. poor, w.
 S. 7-9' F. stay. + wings y.
 S. 6-12' F. cal. light r. cor. bright y., becom. ing reddish, lobes greenish at tip
 H. 3-7' F. pet. light y.
 V. woody F. cor. pur. paler prox. in.
 S. 6-12' F. ant. dark.
 V. herb. F. cal. rusty b.
 T. 30-40' F. pet. g. y. lustrous ant.
 T. petioles ± 2' F. pet. deep. b.
 H. 1-2' F. stam. spikes w.
 S. 12-15' bray. F. bracts bright pur.
 V. herb. F. cor. rich p, paler prox.
 P. 50-60' trunk 6-8" diam. green in upper 10' leaves clustered at summit
 P. prop roots to 4', infl. 20' from base
 H. F. cal. w.
 on wet boards
 H. slender 2 1/2' F. infl. at base of
 P. stipe 2' leaf 3 1/2' stipules
 T. slender trunk
 H. 10-15'
 H. 1 1/2-3' F. pet. w. pub. twig. at base
 T. 20-40' F. g. at apex. sta. poor.
 V. woody F. ant. light y. g. at center
 H. 1-3' F. w. g. tinged prox.
 H. 2-4' F. periant. w. p. ting. in.
 V. herb. F. cor. pale r.
 V. herb. F. ant. pale y.
 S. 3-5' F. cor. put. deeper in prox.
 F. paler ant. prox.

Nov. 29 dense woods

K. 16

clearing, sandy soil
 thicket
 clearing
 open sandy soil
 clearing
 clearing reddish, lobes greenish at tip
 thicket
 pur. striped dist.
 waste land.
 edge of woods
 thicket
 10' leaves clustered at summit
 8-10' l. edge of woods
 waste land, sandy soil.
 thicket
 waste land, s. v.
 thicket
 dense woods
 clearing
 clearing
 out. prox, fleshy, some deciduous
 edge of woods
 P. W.
 clearing marshy land
 Polonia -

P. L. 1.

P. L. 2.

P. L. 3

P. L. 4, 5.

- 14911 *Lepidocarya*
 14912 *Maunettia*
 14913 *Jussaea*
 14914 *Eleocharis*
 14915 *Cyperus lasiocarpus*
 14916 *Torenia*
 14917 *Psychotria*
 14918 *Mimosa*
 14919 *Cassia*
 14920 *Mikania*
 14921 *Mikania*
 14922 *Casipouia Poinciana pulcherrima*
 14923 (leg.) "guano"
 14924 *Lycopodium semulata*
 14925 (melast.)
 14926 ~~Rumex crispus~~ (euphorb.)
 14927 algae
 14928
 14929 *Maunettia*
 14930 moss
 14931
 14932 *Lycopodium*
 14933 *Dioclea caerulea*
 14934 *Pectis*
 14935 *Celastrum*
 14936 *Dianthus*
 14937 *Furcraea*
 14938 *Acacia*
 14939 *Policonna*
 14940 *Oreocanthus*
 14941 *Hibiscus*
 14942 *Laguncularia*
 14943 *Piper tuberculata*
 14944 *Conoclinium bicolor*
 14945 *Passiflora rufinervis*

- H. pro, some-
 what woody
 S. 4-7'
 H. coarse
 4-8' at base
 H. 1 1/2-3'
 H.
 H.
 S. slender
 S. 4-5', stem slender, 1/2-3/4" diam, bran.
 S. above mid. Pinnate, usually at sum.
 T. 10-12', slender trunk, F. pet. y.
 T. bran. near top
 S. 2-5', slender
 S. 3-6'
 S. simple, F. pet. r. to y.
 S. 6-10' (from base) sta. r.
 T. 30-40' trunk 1 1/2" diam.
 F. buds in a crown, stem. long.
 F. still erect.
 H. 10-15' with
 T. droop.
 on bottom of slowly
 running stream
 S. with straggling
 S. branches
 S. 2-4', bran. elong.
 on moist bank.
 H. 6-12'
 V. herb.
 H. vine
 H. prostrate
 T. 15-25 ft.
 H.
 H. vine
 S. 3-8 ft.
 T. 10-15 ft.
 Par. shrub
 S. 7-8 ft.
 V. herb.
 S. 6-9'
 S. 3-8', bran. elong.
 V. herb.
- F. stem. + unig. deep pur.
 F. cor. w. p. at throat in
 (F. pet. y. branched
 above middle
 F. ped. + cal. r.
 F. buds 1/2-3/4" diam, bran.
 Pinnate, usually at sum.
 F. pet. y.
 F. pet. w.
 F. sta. w.
 F. pet. r. to y.
 sta. r.
 F. buds in a crown, stem. long.
 F. still erect.
 F. pet. + sta. pale p.
 F. ant. pur.
 F. col. light g.
 F. outer per. seg. w.
 F. inner w. 2/3 prox,
 F. cor. p. prox, w. dist.
 F. pet. shy blue
 F. br. green, rays deep y.
 F. stamens w.
 F. cor. light pink,
 lower lip purple - dotted
 F. cor. + corolla
 pure white
 F. pet. green
 F. stam. light pink
 F. Pet. light y.
 F. cor. w. to light p.
 F.

Rec. 1 Clearing
 edge of woods
 marshy land
 marsh

Polaria P. lat.
 "(K.3. from P.W.)

edge of woods
 clearing
 edge of woods

clearing
 marshy land

edge of woods
 woods

marshy land
 clearing

p. dist. at center in thicket
 marshy land
 & largest seg. deep, at suture
 spathe w. prox, deep r. dist.

Dec. 2 thicket
 waste land
 edge of woods
 marsh

edge of woods
 on #14939

Dec. 4 thicket
 marsh
 along trail
 between Nariño & El Tambor

150-
 1300

- 14946 (rub.)
 14947 *Cordia ferruginea*
 14948 *Tuehea*
 14949 *Tournefortia obscura*
 14950 *Psychotria*
 14951 *Scholobrus*
 14952 *Jasacis*
 14953 *Eupatorium odoratum*
 14954 *Pitcairnia*
 14955 *Martynia*
 14956 *Stigmaphyllon*
 14957 *Bignonia*
 14958 *Passiflora maliformis*
 14959 (rub.)
 14960 *Eupatorium*
 14961 *Psychotria*
 14962 *Piper*
 14963 *Passiflora hispida*
 14964 *Lioscorea*
 14965 *Iponia*
 14966 *Iponia polyantha*
 14967 *Eupatorium*
 14968 *Warawicissiana*
 14969 *Passiflora seemannii*
 14970 *Passiflora coriacea*
 14971 *Bauhinia*
 14972 *Asangelos*
 14973 *Mitsonia*
 14974 *Lindsaya*
 14975 *Passiflora pala*
 14976 (melart.)
 14977 *Mikania*
 14978 *Paulinia*
 14979 *Sanchezia*
 14980 *Eclides*

- S. 4-7' F. cor. w.
 T. F. pet. yellowish w.
 S. 3-4' F. branches of inflorescence
 S. 3-5' cal. light r. cor. of fruit
 V. herb. F. pet. grades of
 V. herb. F. corolla purplish.
 S. with herb. F. bracts g. tipped.
 S. bran. F. cor. bluish w.
 H. acaulescent F. sep. outer per. sig. -
 H. cor. r.
 V. herb. F. pet. y.
 V. woody F. cor. w.
 V. herb. F. bracts w.
 T. S. 4-6' bracts tipped with dark
 T. infl. not opened.
 S. few-bran.
 V. herb. F. per. greenish
 V. herb. F. cor. w.
 V. herb. F. cor. y.
 H. 2-3' bracts g. tipped
 S. 10-15' cor. + sta. bl. purp.
 V. herb. bracts longist. r.
 V. herb. F. cor. y. sta. purp.
 V. herb. F. sep. g. ant g. y.
 S. low F. pet. y.
 V. herb. F. g. y.
 S. 2-3' F. lvs. gr. w.
 V. herb. F. pet. p. prox. paler dist.
 T. 10-15' F. elsewhere.
 S. 5-8' F. cor. pale y.
 V. milky sap.

Rec. 4. thickets along trail bet. Mar. + El. Tan.

y. dist, becoming r. throughout

conaceous, gr. y.

Dec. 5 on rocky banks.
 thickets between Las Palmas + Rio
 Tebrija

Dec. 6 Fincha

Dec. 9 Parla

Dec. 11 between Pied. + La Cruz - roadside thicket

Buc.

Buc.

Ph. 2-5

- 14981 *Euphorbia*
 14982 *Calliandra*
 14983 *Clematis*
 14984 *Eugenia attenuata*
 14985 (rub.)
 14986 *Agave*
 14987 *Wedelia trinervia*
 14988 *Phoradendron*
 14989 *Palicourea*
 14990 *Luranta*
 14991 *Securidaca*
 14992 *Chusquea*
 14993 *Lycorceris*
 14994 *Alamanda*
 14995 *Epideudron*
 14996 lichen
 14997 *Hypocnemum*
 14998 *Chelonanthus*
 14999 *Solralia*
 15000 *Cordia divaricata*
 15001 *Befaria*
 15002 *Bromelia*
 15003 *Centropogon*
 15004 *Lycopodium reflexum*
 15005 *Cordia caracasana*
 15006 *Vibenum*
 15007 *Hyptis*
 15008 *Miconia rugosissima*
 15009 *Crotas*
 15010 *Cecropia*
 15011 *Arenaria lursuta*
 15012 moss.
 15013 *Tradescantia*
 15014 *Wedelia trilobata*
 15015 *Passiflora trisulca*

V. somewhat woody F. pet. w.
 S. 10-20' F. sta. ~~rich~~ pink to red
 V. ~~woody~~ F. style gr. w.
 T. 15-20' F. pet. w. ant. g.
 S. 6-8' F. cor. pale y.
 infl. to 20' li. leaves rosette,
 leaves to 5" l. 3' l. basal
 S. 4-5' bran. dwar. F. rays y.
 E. H. or S. on 14989
 T. 10-12' F. ludo w.
 S. with scan. F. cor. pur. w. pt
 S. bran. 2-6' F. cen. Fr. o.
 V. woody. Fr. reddish p.
 V. woody.
 S. 6-8' bran. F. rays, cor. style. o.
 S. spread. F. cor. y.
 T. 15-20' F. cor. y.
 H. F. 5 per. sec. r. o. lip. y. prop.
 with 4 dark spots, dist
 H. 1-3' F. y. cream w.
 H. F. w. except lip streaked at
 H. F. center with o. and y.
 S. 2-3' with muddy granular
 short bran. forming rounded
 cov. S. 2-3' F. cor. light p. to w.
 T. 10-12' F. cor. light p. to w.
 H. leaves to 2' l. spike to 3'
 S. 6-10' F. cor. r.
 F. branched within 6" of base.
 S. bran. 3/4" diam. F. cor. w.
 T. 12-20' F. cor. w.
 H. coarse, 2-4' F. cor. w.
 H. I woody at base F. cor. w.
 H. woody at base F. pet. rosy w.
 H. 1-3' base F. ant. purp.
 T. 30-40' F. sta. w.
 T. ant-inhab.
 T. 25-30'
 F.
 on rocks
 H. succ. F. w.
 H. succ. F. rays y.
 V. herb. Fr. g.

Sec. 11. thickets roadside, bet. Pied & Jalisco.
 Mesa de los Santos,
 northern slopes

light y. g. ant deeper in.
 exposed banks
 thickets

light o. r. exposed banks.
 on rocky bank
 exposed banks

crum F. cor. w.

thickets
 among grass exposed banks
 thickets

exposed banks.

thickets open places
 open places
 rocky banks.

thicket.

1000-
1500

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P.M. 6

P.N. 1.

15016	<i>Bledium</i>	F. low	F. cor. r.
15017	<i>Centropogon</i>	H. 2-3'	F. pet. magenta
15018	<i>Miconia parvula</i>	V. herb.	F. cor. r.
15019	<i>Centropogon</i>	T. 20-35'	F. sta. w.
15020	<i>Eugenia jandao</i>	V. woody	F. pet. w. Fr. black
15021	<i>Rubus</i>	T. 15-30'	
15022	<i>Rapania</i>	H. leaves mott. g. w.	F. per. w.
15023	<i>Brouetia variagata</i>	H.	
15024	<i>Habenaria</i>	H. 3-5'	
15025	<i>Paspalum</i>	S. 4-5'	
15026	<i>Piper</i>	F. slender	
15027	<i>Adiantum fragile</i>	S. 4-6'	F. sep. g. corona. pet. w.
15028	<i>Miconia nitida</i>	V. herb.	F. cor. w.
15029	<i>Passiflora suberosa</i> var.	S. 5-10'	F. cor. light b.
15030	<i>Olex bogotense</i>	H.	F. heads w.
15031	<i>Syngranthus</i>	H.	F. pet. deep. purp. b.
15032	<i>Cuphea</i>	H.	F. cor. w.
15033	<i>Amagallis</i>	H.	F. cor. light b.
15034	<i>Mammia</i>	F.	
15035	<i>Lindsaya</i>	H.	F. pet. p. b.
15036	<i>Polygala tenella</i>	on rocks	
15037	<i>Lichen</i>	H.	F. cor. y.
15038	<i>Utricularia</i>	F.	
15039	<i>Ryopteris</i>	H.	
15040	grass	F.	
15041	<i>Pityrogramme</i>	F. floating	
15042	algae	H.	
15043	<i>Bouteloua</i>	H.	F. Y. faintly streaked with r. per. cit
15044	<i>Crotalaria</i>	H.	
15045	<i>Eleocharis</i>	H.	
15046	<i>Tibouchina</i>	S. low, to 5'	F. pet. mag. deep.
15047	<i>Peperomia</i>	H.	
15048	<i>Centropogon</i>	S. low	F. cor. r.
15049	<i>Thibadia</i>	S. or low T.	F. cor. r. prox. grey.
15050	<i>Phyllodeudon</i>	H. terr.	F. spathe w. becoming.

Dec. 11 today banks Mesa de los Santos
thicket northern slopes

roadside
thicket
roadside.

thicket
rocky banks.
thicket

marshy soil

rocky bank
marshy soil
rocky banks.
marshy soil
rocky banks.
marshy soil
rocky banks
small pool
marshy soil

center inside

thicket
on rock
thicket
woods
spadix w. woods

P.M. 2.

- 15051 *Scleria*
 15052 *Ischaemum* *Isotoma*
 15053 *Sternorrhynchus*
 15054 *Sabicea*
 15055 *Miconia rhondifolia*
 15056 *Sipanea*
 15057 *Polypodium*
 15058 moss
 15059 moss
 15060 (rub.)
 15061 *Piper*
 15062 *Miconia*
 15063 *Tibouchena*
 15064 *Psidium arauca*
 15065 moss
 15066 hepatic
 15067 *Tillandsia*
 15068 *Psychotria*
 15069 *Psychotria*
 15070 (rub.)
 15071 *Solanum*
 15072 *Phorodendron*
 15073 *Miconia*
 15074 *Cecropia*
 15075 *Jussiaea*
 15076 *Solanum*
 15077 *Monnina*
 15078 lichen
 15079 lichen
 15080 *Hura*
 15081 *Miconia*
 15082 *Miconia ciliata*
 15083 *Lyallia caespitosa*
 15084 *Neplrolepis*
 15085 *Ageratum*

H.
 H. F. car. r. paler within
 H. ter. F. rachis, per. tube, + 5 per. l. br, deep r.
 H. repunt Fr. b.
 S. 6-8' F. pet. w. F.
 S. 5-8' F. cor. gr. y. Fr. dull.
 F. repunt
 on rocks
 on soil
 T. 10-15'
 S. 6-10'
 S. or lant. 10-15' F. pet. w.
 S. 10-12' F. pet. magenta
 T. 10-15' F. pet. w.
 on fallen log.
 on tree trunk
 E. H.
 T. 15-20'
 T. 15-20'
 F. sepals r. cor. p. S. low.
 V. woody. F. pet. p. w.
 E. H.
 T. 15-30' F. pet. cream y. w.
 T. 20-30' F. pet. light y.
 H. woody. F. pet. y.
 H. 1-3' F. cor. w. ant. y. tinged
 H. 2-4' F. cor. w. ant. y. tinged
 H. coarse lower 2-7' F. pet. deep
 H. perianth woody
 on turg
 on turg
 T. 25-40'
 S. 15-20' Fr. dull r. when
 S. 10-18' F. pet. w. sta. ant. y.
 S. 10-18' F. pet. light p. sta. ant. dark p.
 H. F. heads w.
 F.
 F. cor. w. pappus (?)
 gent. l.

Dec. 11. M. de los S. 41 slope.
 woods

roadside M. de los S.
 thicket
 woods

Dec 12
 mesa de las Santos
 in open

1500

- 15086 *Clidemia*
 15087 *Marrubium*
 15088 *Cyathia*
 15089 *Cassia*
 15090 *Castilleja*
 15091 *Polygala* *Cypripedium cayennensis*
 15092 moss
 15093 hepatic
 15094 *Isopodium cominum*
 15095 *Achyrocline*
 15096 *Tagetes pusilla*
 15097 *Verbena*
 15098 lichen
 15099 *Clusia*
 15100 moss
 15101 *Meriania*
 15102 *Myrsurus*
 15103 lichen
 15104 *Hypericum thesiodes*
 15105 *Weinmannia*
 15106 *Panicum*
 15107 *Tybochena albocentra*
 15108 *Thibodia*
 15109 *Licanopteris pectinata*
 15110 *Licanopteris*
 15111 *Richardia*
 15112 *Paspalum unispikium*
 15113 *Muhlenbergia*
 15114 *Solanum*
 15115 *Solanum*
 15116 *Atrium Randia*
 15117 *Polygamm*
 15118 *Mikania cordifolia*
 15119 *Juripernus*
 15120 *Baccharis*

"Cipoc"

H. 2-4' Fr. pur.
 H. 1' cor. low.
 T. F. caudex 4-12'
 { weak semi-pro. S. style 2 1/2', fr. 5 1/2'
 to erect 5', flat-topped crown 4" h.
 H. 1 1/2' F. bracts at base 9" at
 middle, tipped with r.
 H.
 on soil
 on soil
 F. caesp. F. heads gr. y.
 H. 2-3' F. umbel. grass gr.
 H. F. rays light y.
 H. F. rays y. styles crown
 upright on bare rocks
 T. 20-35' - wide spread. crown
 trunk to branches 5'
 on soil
 H. F. pet. light p. b.
 F. ant. y.
 H.
 on soil
 H. F. pet. y.
 T. 6-15' F. sta. w.
 trunk to 2"
 H. 4-7' F. pet. deep b. w. at base.
 S. 10-15' F. cil. w. with b. hairs. ant. b.
 S. 10-15' F. cor. r. prop. 1/3 v. dist. 1/3
 F. style pale r. prop. 1/3 purp. dist.
 F.
 F. semi-succ. Fr. pur. w.
 H. semi-pro.
 H. woody 2-3' stem simple
 H. 4-6' F. cor. w.
 S. 4-6' F. ant. y.
 S. to 10' wide- F. pet. light b.
 S. spread bran. F. ant. w.
 T. 10-15' F. b.
 T. slender. Fr. b.
 H. F. w.
 V. woody F. cor. 2 at apex
 T. 50-70' a' diam.
 T. trunk 5-6' F. heads w.

Dec. 12 M. de So S. Grassland

F. pet. y.

S. semi-pro. to
 S. sub.-erect. to 2 1/2'

Edge of wds.

Grassland.

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P.P.N. 131

P.N. 601

- 15121 *Louania*
 15122 *Clusia*
 15123 *Fuchsia*
 15124 *Thibodia*
 15125 *Hydrocotyle*
 15126 *Selidnanthus*
 15127 *Cassia*
 15128 *Vittaria*
 15129 *Lindsaya*
 15130 *Lindsaya*
 15131 *Anona*
 15132 (rub.)
 15133 *Selidnanthus*
 15134 *Laphaninos*
 15135 fungus
 15136 *Hepatic*
 15137 *Lophidium*
 15138 *Cladonia*
 15139 *Xyris*
 15140 *Rhynchospora globosa*
 15141 *Ciriphaea*
 15142 *Rhynchospora glauca*
 15143 *Paspalum*
 15144 *Piper*
 15145 *Polypodium tetrasorium.*
 15146 *Elaphoglossum*
 15147 *Polypodium glaucisylum*
 15148 lichen
 15149 *Oleandra*
 15150 *Vittaria*
 15151 *Psychotria*
 15152 *Trichomanes*
 15153 *Trichomanes robustum* Fourn. aff.
 15154 *Palicourea*
 15155 *Sabicea*

F. spreading. Fr. pub. prox.
 T. 10-20' F. cal. deep. y. prox. red
 S. 5-10' F. pet. fil. style
 S. spread. F. cor. r. prox. p. w. dist.
 S. 6-12'
 H. repent, in pool
 H. coarse, F. cor. p., tube shiny
 H. 5-20' F. pet. y.
 S. 2-5' spread, F. pet. y.
 S. bran. prox.
 F. upright in soil
 F.
 F. 20-30' F. sep. y.
 T. 8-12' F. cal. r. cor. p.
 S. 10-20'
 H. sapro. see 126
 H. sapro. & y. throughout
 on decayed soil
 on tree trunk
 F.
 lichen on soil
 H. F. per. y.
 H. suff.
 H. pub. F. pet. w.
 H.
 H. 3'
 S. 3'
 F. at base of trees
 F. on tree trunk
 on tree trunks
 F.
 F. dependent from
 F. trunks & branches
 S. 8-20' Fr. g. b.
 F. banks of small streams
 F.
 F. slender tr. inf. bran. r.
 T. 15' F. cor. long. lit. y.
 S. 10-15' spreading back. long. lit. r.

Dec. 12 M. de la S. woods
 tube & abes.
 ant. 9.
 woods
 in pool - marsh.
 out. 9. in, long. striped with w. woods
 woods
 - banks of stream
 woods
 marshy meadow

 woods.

det. W. W. W. 1977

1 15156 *Jussiaea angustifolia*

1 15157 moss

1 15158 hepatic

1 15159 moss

1 15160 moss

1 15161 moss

1 15162 hepatic

1 15163 *Clidemia*

1 15164 *Miconia*

1 15165 *Borreria*

1 15166 ~~*Ilex*~~ *Symplocos* A: fruiting specimen

1 15167 *Andropogon*

1 15168 *Cuphea glabra*

1 15169 *Oleandra*

1 15170 *Cratogeomys*

1 15171 *Thermistoclesia cordifolia*

1 15172 *Eutthierae*

1 15173 *Juncus*

1 15174 *Mikania*

1 15175 *Fimbristylis*

1 15176 *Legitania*

1 15177 *Cyperus*

1 15178 *Sporobolus*

1 15179 *Waltheria* *Turnera*

1 15180 *Cassia*

1 15181 *Chaptalia*

1 15182 moss

1 15183 lichen

1 15184 lichen

1 15185 hepatic

1 15186 lichen

1 15187 *Ilex*

1 15188 *Mikania*

1 15189 *Eupatorium*

1 15190 *Xyris*

S. 4-7' F. pet.

on tree trunk

around decaying twigs

on wet bank

on soil

on decaying wood

on decaying wood

S. 4-6' F. pet. bl. p.

H. suff. or F. pet. from w. to pale b.

H. pros. F. cor. w.

S. 5-7' F. pet. w.

H.

H. woody. F. pet. mag.

F. sub-gear,

H. climbing, among rocks

H. woody, bran. at F. cor. light

T. 15-20' F. pet. yellowish

H.

V. woody F. pappus w.

H.

H.

H.

H.

S. 1-3' F. pet. y.

T. 12-20' F. pet. y.

H. F. pappus w.

on soil

on rocks

on rocks

on moist bank.

on rocks

S. 10-12' F. pet. w.

V. herb. F. cor. bluish w.

H. woody. F. cor. purp. style. str. g.

H. at base F. pappus pale b.

H. F. pet. y.

Dec. 12 M. de los S.

woods

in crevices of bare rocks

thicket

wet meadow

crev. bare rocks.

M. de los S. in open

woods.

leaves silky beneath open.

wet marl

thicket

wet marl

M. de los S.

marshy land

- 15191 Verbesina
 15192 Aristida
 15193 Panicum
 15194 Scleria hirtella
 15195 Metastelma
 15196 Dichromena
 15197 Mikonia
 15198 Eupatorium
 15199 Centropogon
 15200 Miskania
 15201 Eupatorium
 15202 Alsophila
 15203 Trichomanes crispum L. aff.
 15204 Nephrolepis
 15205 moss
 15206 hepatic
 15207 Bromelia
 15208 Peperomia
 15209 moss
 15210 moss
 15211 Selligella
 15212 Lichen
 15213 Eupatorium
 15214 Epidendrum
 15215 Epidendrum
 15216 Tibouchena
 15217 (acanth)
 15218 Panicum
 15219 Malaxis
 15220 (rub.)
 15221 Lichen
 15222 Lichen
 15223 Renialmia
 15224 Scleria
 15225 Eurya

S. 6-8' crown compact, F. ray bright
 rounded, Y.
 H.
 H.
 H.
 V. woody F. cor. w.
 H. bracts w. at base
 T. 12-15' F. buds w.
 H. I woody F. Fr. purplish
 H. 2-4' F. ~~deep p. b.~~
 H. woody, bran. at F. cor.
 H. base, bran semi-pros. F.
 V. I woody F. pappus w.
 S. 4-7' sta. w.
 F. caudex to 2' l.
 F. semi-pros.
 F.
 on soil
 among turfs
 E. H. in basket of Sp. 2.5 ft.
 H. turfs long
 among turfs
 on wet bank.
 on wet bank.
 on rock.
 S. 6-9' bran. F. pappus w.
 spreading
 H. F. sepals & lip salmon
 column q. prox. deep
 F. column q. w. lip y. q.
 F. act. + fr. mag. p.
 ant. y.
 S. 5-8' stem
 fruit, simple, 2" diam.
 H.
 H.
 S. 5-7' stem
 S. simple, leafy at summit F. sep. + pet. y. y.
 on rocks
 on rocks
 H. coarse
 leaves basal.
 H.
 T. 15-20' bran.
 droop.

Dec. 12 M. de las S.
 rocky crevices
 Mesa

cor. w. light p. b. at margin
 style light purp.

rocky ledge.

Det. W. S. S. 1977

woods

Mesa
 exposed rocks

Y. q. above, purp. at apex
 "crest" Y.

rocky cliffs

exposed rocks

rocky cliffs
 exposed rocks

Flucliet
 exp. rocks.
 Mesa

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P. P. & NG

P. P. & O. L.

- 15226 Eupatorium
 15227 Passiflora ligularis
 15228 Anisochia
 15229 Stenophiles
 15230 Symplocaria purpurea
 15231 (rub.)
 15232 Leclouxia
 15233 Tibouchena
 15234 Anstida
 15235 Fimbristylis
 15236 Paspalum parvifolium
 15237 Juncus
 15238 Coryza
 15239 Juncus
 15240 Swertia
 15241 Eragrostus purpurea
 15242 Rynchospora
 15243 Boraria
 15244 (euphorb.)
 15245 Mikania
 15246 Palicourea
 15247 moss.
 15248 Dryopteris
 15249 Andropogon
 15250 Polygala leucophylla
 15251 Spermocoe
 15252 moss
 15253 moss
 15254 Guaphalium purpureum
 15255 Sonchus
 15256 Hypoxis
 15257 Vittaria
 15258 Sabicea
 15259 Solanum
 15260 (rub.)

- H. coarse 3-5' F. cor. light red. p.
 V. herb. F. bracts light y. g. sep.
 H. F. pet. w. cor. rays
 H. F. cor. golden y.
 H.
 H. bran. pros. F. cor. tube w.
 H. low, stems F. lobes p.
 H. 1-2' woody F. cor. w.
 H. F. pet. usaq.
 H.
 H.
 H.
 H.
 H.
 H.
 H.
 H. F. cor. w.
 T. 15-25' slender F. r. cor. q. y. also style
 V. woody F. stig. b. pappus w.
 T. slender 12-20' F. cor. w.
 T. bran. droop. F. cor. w.
 on dead tree
 F.
 H.
 H. F. pet. p. lip y.
 H. pros. F. cor. bl. w.
 on rich soil
 on rich soil
 H.
 H. F. heads q. y.
 H. F. per. y.
 F. outtree trunk
 S. 10-15' slender F. bracts r.
 H. spread. bran. F. cor. q. aut y.
 T. 2-5' F. prox. w. dist.
 T. 25-30'

Dec 13 Mesa
 light y. g. out w. in. light p. inner seeds with few tips thickset
 dry prairie grassland.

marshy meadow
woods

meadow
marshy meadow

open meadow

dry meadows

rich wet soil at edge of woods
Dense woods
Fr. long & b.
F. cor. pale y.

- 15261 *Pleurothallus*
 15262 *Epidendrum longiflorum*
 15263 *Anthurium corifolium*
 15264 *Piper*
 15265 *Piper*
 15266 *Miconia albida*
 15267 *Anthurium*
 15268 *Stelis*
 15269 *Stelis*
 15270 *Malays*
 15271 *Vittaria*
 15272 *Polypodium (laucolatum-type)*
 15273 *Miconia*
 15274 *Miconia*
 15275 *Psychotria*
 15276 (nb.)
 15277 *Canna*
 15278 *Pleurothallus*
 15279 *Meriania*
 15280 *Xyris*
 15281 *Lycopodium*
 15282 *Polygala meriana*
 15283 *Crotalaria*
 15284 *Melastoma*
 15285 *Claphoglossum*
 15286 *Palicourea*
 15287 *Dichaea Lycopodium*
 15288 *Phyllocladus*
 15289
 15290 *Ocotea*
 15291 *Browelia*
 15292 *Peperomia*
 15293
 15294 ~~(claus)~~ *Ficus*
 15295 *Miconia*

- E.H.
 E.H.
 H. at base of spathe r. pur.
 S. ^{8-10'} stem simple, straight
 T. stem erect simple 20" h.
 S. ^{10-12'} leafy upper 1/3
 S. ^{10-12'} branch ^{in bud} infl. + pet. vv.
 H. ^{at base of tree}
 E.H. F. cat sep. q. w. with
 E.H.
 E.H. F. sep. deep. rose
 F. ^{column. y.}
 F. ^{drooping} climbing on tree trunks
 T. slender
 T. ^{12-15'} 15' h. or more with
 T. short bran.
 T. 12-15' Fr. black.
 T. 25-30' ^{Fr. h.} infl. droop.
 H. coarse Infl. r.
 E.H.
 H. F. pet. pale lilac
 H. F. ant. cream
 H. F. pery.
 F. in soil long bran. erect
 H. F. pet. p.
 S. ^{6-12'} few-bran.
 T. 10-20' F. pet. mag. sta. w.
 F. on tree with vv.
 T. 15-20' F. bran. infl. pur.
 F. cor light b.
 E.H.
 H. ^{scam} climbing | spathe vv.
 H. up the trunks
 T. 25-30'
 T. (fallen) infl. deep. p.
 E.H.
 H.
 T. (h.?) prob. tall.
 T. 25-35'
 T. 20-30'

Dec 13. woods

Mesa

with weak, divar. bran. at summit
spikes to ~~15'~~ 2' l.

spathe w.
deep pur. spots

also bit wet meadow

numerous short bran.
flat on ground.

Woods, edge
nig at centre dense woods

streaked + blotched with red ant.
in: proso. dust w.

15296	<i>Quercus</i>	"rosinogal"	T. tall, fallen
15297	<i>Poly podium</i>		F. climbing on tree trunks
15298	<i>Begonia</i>	"guaco"	H. 1-1½' F. stems deep r.
15299	<i>Paepalanthus</i>		H. F. buds r. becoming
15300	<i>Camellia</i>		H. succ. F. heads ashy grey
15301	<i>Hyptis angustifolia</i>		H. F. per. deep. b.
15302	<i>Trientalis</i>		H. F. cor. w.
15303	<i>Meriania</i>		H. F. pet w. fragrant
15304	hepatic		H. wood F. pet. pale lilac
15305	hepatic		on wet log.
15306	moss		among roots of 15270
15307	<i>Ligutaria</i>		on decayed log.
15308	<i>Browallia</i>		H. F. cor. deep b.
15309	<i>Alsophila</i>		H. F. cor. deep b.
15310	<i>Trichomanes crispum</i> L.		F. caudex erect, 2' h.
15311	<i>Elaphoglossum</i>		F. sterile fr. 4' h.
15312	<i>Phorodendron</i>		F. in shade
15313	(juncenaceae)		F. rock crevices
15314	palm		F.
15315	(rub.)		E. H. or S.
15316	<i>Peperomia</i>		H. acaulescent F. cor. y.
15317	<i>Masdevallia</i>		D. trunk 20' smooth
15318	<i>Erythroxylon variegata</i>		D. with rings, leaves 4-5'
15319	<i>Liparis</i>		T. 10-15' trunk
15320	<i>Passiflora</i>		T. + bran. slender Fr. dark g.
15321	<i>Lichaea</i>		H. ep.
15322	<i>Lichaea</i>		E. H. F. sep. light salmon p.
15323	<i>Bactris</i>		H. terr. leaves dark g. part. above
15324	<i>Peperomia</i>		H. with pale g. at center and similar
15325	palm		H. terr. Fr. light g.
15326	<i>Bromelia</i>		V. herb.
15327	<i>Trichomanes</i>		H. on decaying log
15328	orchid		H. on decaying log
15329	moss		D. trunk spiny, 2-3" diam.
15330	hepatic		P. 6-12' fr. leaves 6-8'

Dec. 13 dense woods

Mesa

palop. marshy land

dry prairie
meadow

Sec. 14 Mesa
exposed rocks (det. Wilsh 1977) Mesa
woods

infl. peduncle 1 fl.
13 pairs of leaflets (this spec.)

column. gr. y.
 spots F sep. light g.

dense forest floor
 woods

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- 15331 lichen
 15332 moss
 15333 hepatic
 15334 Trichomanes
 15335 (juner.)
 15336 palm
 15337 Lindsaea
 15338 Alsophila
 15339 Cladoglossum
 15340 Polypodium
 15341 Polypodium
 15342 Trichomanes
 15343 moss
 15344 Polypodium duralis
 15345 Peperomia
 15346 Selaginella
 15347 lichen
 15348 lichen
 15349 lichen
 15350 leafy
 15351 lichen
 15352 lichen
 15353 lichen
 15354 (clus.)
 15355 Blechnum fraxinum
 15356 Polypodium
 15357 (rub.)
 15358 Trichomanes
 15359 Splachnum
 15360 hepatic
 15361 hepatic
 15362 Verbascum
 15363 Piper
 15364 Passiflora
 15365 (rub.) Policonia

- on decaying wood
 on decaying wood
 on decaying wood
 on decaying wood
 H. climbing on tree trunk
 H. leaves long, lit. beneath
 P. trunk 8-10'; 4-6" diam. Fr. dark
 P. roots 3-5'
 F. in crevices of rock
 T. F. trunk 6-10'; 2-4" diam.
 F. under projecting rock. Fr. appearing
 F. in crevices
 F. stem appressed to tree trunk
 F. upper 1 or 2 fr. fertile
 F. on wet banks
 wet banks.
 F. wet banks, also rocky crev.
 H.
 H.
 on rocks
 on rocks
 on rocks
 on 15217?
 on rocks
 on rocks
 on rocks
 T. 12-20' Fr. depressed globose y.g.
 F. with 12 rib. with
 F. on tree trunk
 F. fallen. F. cal. y.g. reddish prox.
 T. pol. tall
 F. dependent from branches
 on moist banks
 on tree trunk
 on tree trunk
 S. 5-8' F. rays y. sta. + styles y.
 S. 5-7'
 V. herb. (this spec. juv.)
 S. F. cal. r.p.

Dec. 14 woods

Mesa.

rocky places
 exposed bank
 exposed rocks
 woods

exposed rocks

woods

edge of woods

- 15366 *Verbesina*
 15367
 15368 *Mendoncia*
 15369 *hepatic*
 15370 *Epidendrum*
 15371 *Brumellia*
 15372 (rub.)
 15373 *Solanum*
 15374 *Vernonia*
 15375 *Centropogon*
 15376 *Cordia ferruginea*
 15377 *Elephantopus*
 15378 *Oreopanax*
 15379 *Piper*
 15380 *Lioecora*
 15381 *Lycopodium*
 15382 *Ichmananthus*
 15383 (bamboo)
 15384 *Eupatorium*
 15385 *Aegrotas*
 15386 *Hypoxis*
 15387 *Commelina*
 15388 *Triumfetta*
 15389 *Thalesia*
 15390 *Phyllanthus*
 15391 moss.
 15392 *Palicourea*
 15393 moss
 15394 (anacard.)
 15395 *Excoecera*
 15396 *Relbunium hypocarpium*
 15397 moss
 15398 (comp.)
 15399 *Arenaria lanuginosa*
 15400 *Meibomia*

S. 7-10' F rays y. styles deep
 growing out of trunk
 of large tree
 V. woody bracts r.p.
 on tree trunks
 E. H. of 15371 F. column y. pur. at base
 T. 20-30' crown F. pet p.w. y. at base
 S. slender 3-4' F. cor g. y.
 S. 7-10' bran. F. cor gr. out
 S. spreading F. y.p. in. ant. y.
 S. 5-7' invol. g. cor. lined
 S. slender, elong. bran. F. pappus w. style red p.
 S. 2-4' F. cor. p.
 S. 4-6' F. cor. gr. w.
 H. F. heads light p.
 T. 10-15' erect 3-4' diam.
 S. 8-10' stem simple, leaves & infl. at summit, resembling papaya
 V. woody. Fr. olive g.
 F.
 H.
 V. herb.
 S. 6-9' F. invol. light g.
 F. cor. & styles light
 H.
 H. lax F. cor. light p. most
 H. repent F. with deeper p. on lobes within
 H. woody at base F. cor. w.
 H. base F. pet. o. y.
 H. 5-7' Fr. n.
 H. slender F. pet. w.
 on soil
 T. 10-12' bran. Fr. dark g.
 T. slender, droop. on decaying wood
 T. 15-20' F. pet. p.
 V. herb. F. cor. gr. y.
 V. herb. Fr. o.
 on moist soil
 H. 4-10' F. bracts pur. r. pap.
 H. slender, with F. cor. g. w. g.
 H. semi-pro. stem F. pet. w.
 H. sub. can. F. pet. deep. b.

Sec. 14 edge of woods Mesa
 woods
 northern slopes of Mesa open

woods, n. slopes Mesa
 resembling papaya

lobes within n. slopes - Mesa
 moist soil, edge of woods
 n. slopes. Mesa
 woods - n. slopes

F. cor. cream

n. slopes
 in dripping water, n. slopes
 styles grass g.

P.P.3

- 15401 *Croton*
 15402 *Eugenia* "aroyana"
 15403 *Cassia*
 15404 *Hyptis*
 15405 *Diga*
 15406 orchid
 15407 *Polypodium lauce* (type)
 15408 *Latura*
 15409 *Vernonia*
 15410 *Verbena*
 15411 *Miconia*
 15412 *Solanum aurea*
 15413 *Lantana*
 15414 *Eupatorium*
 15415 *Cassia*
 15416 (comp.)
 15417 *Eupatorium*
 15418 *Matricaria*
 15419 *Cassia*
 15420 *Croton* "masquero"
 15421 *Piper*
 15422 *Hyptis*
 15423 *Baccharis trunervia*
 15424 *Equisetum giganteum* "caula de caballo"
 15425 *Mimosa*
 15426 *Indigophera*
 15427 *Miconia* "clausa"
 15428 *Phaseolus* "tote"
 15429 *Eupatorium*
 15430 *Clusia*
 15431 *Bradberia*
 15432 (rub.)
 15433 *Zizyphus*
 15434 *Evolvulus*
 15435 *Escobedia* "asofriu"

S. 3-8' slender F. pet. w.
 T. 12-15' F. bracts p.
 S. 5-10' F. pet. y.
 H. 2-3' F. cor. mag. b.
 T. 25-30'
 H. terr. leaves pur. beneath Fr. q.
 F. rhizome repent
 S. 8-10' F. cor. w. fl. droop.
 S. 4-7' F. cor. t. pappus w.
 T. 12-15' F. pappus b.
 S. 3-5' F. pet. sta. styles w.
 T. 8-12' F. cor. solit. g.
 S. 3-5' F. ant. y.
 S. straggling F. cor. w.
 H. 4-6' F. invol. g. with r. viol.
 H. base 2-3' F. lacin. at apex
 T. 8-12' F. pet. y.
 S. 3-8' F. y.
 H. coarse F. invol. light g.
 S. ± 10' F. cor. p. styles w.
 S. 3-4' F. rays w. stig. g.
 S. 7-10' F. cor. pinkish
 S. 6-8' F. pet. y.
 S. 12-22' stem F. pet. w.
 H. quadrangular F. cor. cream
 S. 5-8' F. invol. g.
 F. cor. gr. w.
 H. 2-3 1/2' F. pet. p. prox. r. dist.
 S. 5-7' F. sta. w. prox. b. p. dist.
 S. 12-20' leaf F. pet. p.
 T. blades recurved from base to apex
 V. woody F. stan. wings pur. keel g.
 V. woody F. invol. light g.
 T. 12-20' F. cor. t. pap. y. g.
 F. pet. w.
 V. herb. F. stan. p. purp. dark
 S. 6-8' F. purp. stripe near
 F. cor. y. center, purp. at center
 S. or small T. Fr. b. F. pet. gr. w.
 V. turning F. cor. light b.
 H. stiff F. cor. w. F. cor. w.

Dec. 17. slopes, n - Mesa

woods
 dense forest floor - Mesa

Mesa
 Dec. 15 in garden - Mesa
 n. slopes - Mesa

cor. pale p, r. viol. at apex

wings p. purp, also keel
 center, purp. at center

"roots used for yellow
 coloring matter"

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- 15436 *Trixis* (common at this alt.) S 2-5' F involg. rays gold. y.
 15437 *Gliricidia sepium* T. with erect leafy branches. 6-12' F cor. o. y. pet. p.
 15438 *Serjania* V. woody F pet. w.
 15439 *Luggera* S. 5-7' with droop. F cor. w.
 15440 *Iponoea* V. herb. F cor. p, paler prox.
 15441 (comp.) H. coarse. F cor. light g.
 15442 *Vernonia* H. 5-8' F styles purp.
 15443 *Cosmos* "napola" H. 4-6' F involg. q. cor. pale p.
 15444 *Vernonia* H. 3-5' F rays deep p. cor. gr. with golden lobes
 15445 *Piper* S. 5-7' F cor. + pappus w.
 15446 *Epideudron* "arril" S. 4-6' F
 15447 *Paclura* E. H. on wall. F sep. deep purp.
 15448 *Medicaria* "plantavilla" T. 35-50' F ellip deep p.
 15449 *Canina* I. in cemetery
 15450 *Solanum* H. 20-30' F sep. light r.
 15451 "almendro" T. 11' F pet. deep r.
 15452 (rub.) "aro blanco" T. 50-60' spread. F cor. w. l. aint y.
 15453 *Passiflora maliformis* T. 10-12' F
 15454 *Passiflora palla* V. herb. F bracts light g. sep. light g. out. inner fil. same-spotted in. outer fil. upper fil. light g.
 15455 *Strutianthus* V. herb. F sep. dark g. dist. w. margin w. in. pet. w. p. at margin 2 as long as sepals. Fil. g. prox. br. bristled. y. at apex. Oper. from trees
 15456 *Smilax* H. par. dependent
 15457 "grayana del no" V. T. 10-12' F pet. w. sta. y.
 15458 "grajibito de quinea" T. 20-25' F
 15459 *Mimosa* T. 10-12' trunk 6" diam. F. sta. g.
 15460 (comp.) T. straight 2 way, flat topped
 15461 *Baccharis* S. a low tree F rays w. styles
 15462 *Bignonia* S. trunk to 2" diam. F cor. w. styles
 15463 *Eugenia* S. 6-10' F involg. w.
 15464 *Mimosa* S. 2-5' bran. F cor. mag. p.
 15465 *Cavendishia* S. 2-5' H. secan. F pet. w. sta. y.
 15466 *Biophytum* H. somewhat 6-10' F sta. p.
 15467 *Tibouchena* H. woody 3-6' F cor. light p.
 15468 (comp) S. 4-8' F pet. p.
 15469 *Eclitpe* H. coarse F pet. deep mag.
 15470 *Malvastrum* S. 2-4' bran. F rays w.
 15449 *Euphorbia* S. spread F bracts gold. y.
 H. pro. F cor. y.
 F pet. light p.
 F pet. w.

Dec. 15 u. slopes - Mesa
 shield southward from Piedecuesta

styles deep purp.

spines p. green tipped in. column g. - y. at apex
 16 Bucaramanga

Dec. 16. lip deep r. o. r. spotted in. garden - Buc.
 Dec. 17 in yard Buc.
 Dec. 18 Bucaramanga

densely deep-r. spotted in. pet w. out. less densely
 r. w. striped prox. b. + w. dist. g. + styles y. g. p. + dotted.
 w. in. pet. w. p. at margin 2 as long as sepals. Fil. g. prox.
 grass g. Styles purp.

Dec. 19
 Dec. 20 Piedecuesta
 dark p. between Pied. + Vegas
 Open hillside.

Dec. 16 crevices of tiles in patio Buc

980

P-5

P. Q. 1. N. S.
 P. Q. 2.
 Q. 3
 Q. 4

1200
 1000m.
 1200-
 2000.

- 15471 Castilleja
15472 Myrcia
15473 Epidendrum
15474 Achyrocline
15475 Lantana
15476 Ficus
15477 Calliandra
15478 ~~Cupressus~~ Mikania
15479 Rhorodendron
15480 Centropogon
15481 Miconia
15482 (sub.)
15483 Viola
15484 Sclaginella
15485 Carex
15486 Fischerea
15487 grass.
15488 Isotoma
15489 Dryopteris
15490 Lomaria
15491 Lycopodium cernuum
15492 Canna
15493 Bilhai
15494 Paspalum
15495 Rebunium
15496 hepatic
15497 Lycopodium
15498 Piper
15499 ~~Citrospora~~ Veronica
15500 Richardsonia
15501 Meibomia
15502 Peperomia
15503 Bonmaria
15504 Palicourea
15505 Cordia floribunda

H. 1-3' F. bract light r.
T. 15-20' F. pet. w.
H. to 3' F. per. sep. light y.
H. to 3' F. lip. 6 column. br. y.
S. to 3' F. infl. q. w.
T. 25-30' F. cor. lilac
T. 8-12' F. sta. w.
V. woody F. rays w. cor. q. nt.
E. S. "caopia" "sawtooth" on M. de los
V. woody F. cor. bright p.
T. slender F. pet. w.
S. 6-8' F. cor. pinkish r.
H. F. pet. light viol.
F. lip. 6-streaked pr. in
H. F. cor. gr. w.
H. sub. scab.
H. F. cor. light p. nt.
F. y. molt with r. w. Fr.
F. coarse F. per. br. r.
H. 6-8' F. infl. depend
H. leaves 10-12' 3-4' bract
H. V. Fr. o. r.
on soil
F. S. 6-8'
H. repent
H. repent
V. herb. F. pet. b.
H. repent
V. herb. F. infl. sep. light y.
S. 6-8' F. cor. r.
S. 4-6' F. cor. w.

19
Dec. 20 between Pied. & Vegas

becoming r.

2000-
2100

on wet banks

woods bet. P-V.
light r. per. light y. woods

banks
moist banks

woods
wet banks

woods
wet banks

woods → inner sep. rose p. out w. + faintly per. dot. in.
inner sep. q. w. densely prop. dot.

- 15541 Pilea
- 15542 Cyrtandra rotunda
- 15543 Siegesbeckia
- 15544 Solanum
- 15545 Sida
- 15546 moss
- 15547 hepatic
- 15548 (march. hep.)
- 15549 (march. hep.)
- 15550 (pterid.)
- 15551 Selaginella diffusa (L.) Spring
- 15552 Peperomia
- 15553 Solanum
- 15554 Dryopteris
- 15555 Asplenium
- 15556 Boconia
- 15557 Diplazium
- 15558 Pilea
- 15559 Sibthorpia
- 15560 hepatic
- 15561 moss
- 15562 moss
- 15563 (anthoc. hep.)
- 15564 moss
- 15565 Polystichum (moss)
- 15566 Rubus
- 15567 Monarda
- 15568 Solanum
- 15569 Habenaria
- 15570 (orchid)
- 15571 (orchid)
- 15572 Paspalum
- 15573 Valeriana
- 15574 Monarda

H. succ. repeat
at base.
H.
H.
S. 6-8'
V. herb.
on soil
on soil
on soil
F. stem 4' high.
F. dich. at apex
H. repeat at base
S. low
S. 6-10'
F.
F.
T. 10-15'
F. succ.
H. repeat
on soil
—
—
—
V. woody
H. 3-5'
S. slender
S. 3-5'
H. terr.
H. terr.
E.H.
H. 2-3'
H.
S.
F. pet. light p.
F. Fr. (umb.)
F. deep b.
F. cor. w. ant. y.
F. per. sep. light p.
F. per. sep. pinkish
F. 5 sep. pale p. w.
F. smaller 3 h. at cent. ant.
F. cor. w.
F. pet. deep b.

19
Dec 20 wooded banks. bet. P. & U.
sandy bank.
moist bank.
woods
moist bank
wet forest soil
thickets
woods
wet forested gully
thicket.
w. p. gully.
moist banks.
roadside
thicket
roadside banks
upw. 4 deep. dots at cent. r spot. prox.
column w. r. at apex
open hillside
Dec. 20 woods east of Apurimac
bet. Vegas

- 15576 Passifloraxista
 15577 Rubus
 15578 Baueria
 15579 Centropogon
 15580 Calceolaria
 15581 Centropogon
 15582 Calceolaria angustifolia
 15583 Myosotis
 15584 Alonsoa
 15585 Castilleja
 15586 Berberis
 15587 Baueria
 15588 Agrostis
 15589 Bromus
 15590 Hydrocotyle
 15591 Agrostis minor
 15592 Geranium
 15593 Bidens
 15594 Amica
 15595 Cardamine
 15596 Montia
 15597 Siegesbeckia
 15598 Oxalis
 15599 Ranunculus
 15600 Urtica
 15601 Castilleja
 15602 Melastoma crassiflora
 15603 Lysionome
 15604 Salvia
 15605 Bartsia
 15606 (orchid)
 15607 Polypodium
 15608 Peperomia
 15609 Cerastium
 15610 Fuchsia

- V. herb. F. tube g. ant. w. in.
 V. woody F. pet. p.
 V. herb. F. outer seg. p. - pur.
 V. woody F. inner y. d. l. g.
 H. 2-4' F. cor. y.
 S. elong. F. cor. o. r.
 S. bran. F. cor. y.
 S. 2-5' F. cor. y.
 H. F. cor. bright b.
 H. F. y. at cel. t.
 H. F. cor. o. r. sta. br. y.
 H. 6-15" woody below F. bracts r.
 F. cor. o.
 F. pet. y.
 V. herb. F. outer seg. r.
 F. inner & br. y.
 H.
 H.
 H. repent
 H.
 H. bran. F.
 H. Calceolaria repent.
 H. F. cor. y.
 H. coarse F. deep red pur.
 H. to 5' F. cor. y. ant. y.
 H. weak F. pet. y.
 H. weak.
 H. succ. F. cor. y.
 H. succ. F. cor. y.
 H. matted F. sep. y.
 H. stem erect
 H. F. bracts r.
 F. cor. yellowish.
 H. 6-12' F. pet. deep. r.
 H. mat. w. soil F. cor. w.
 H. succ. F. cor. deep pur.
 H. succ. F. w. at base
 H. succ. at base F. cor. w. p. d. d.
 H. succ. erect
 E. H.
 F.
 E. H. succ.
 H.
 B. F. tube p. r. ant.
 F. w. in.

Dec. 20 woods far above Vegas

at upper margin.
 prox. pur. - dotted

exposed hillside
 w.
 e. h.

not spotted ant. p. pur. w.
 paramillo

far, Vegas

3000-
 3300

3300-
 3700

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 15610

[illegible]

Smithsonian Institution
Washington, D.C.

15646	moss	on soil	
15647	(rub.)	T. slender	F. cor. gr. y.
15648	<i>Sisymbrium</i>	H.	F. pet. br. y.
15649	(Cyperaceae)	H.	
15650	<i>Hypnium</i>	5 to 12	F. pet. y. sta. 30 or 40
15651	<i>Alcicium</i>	H.	F. pappus w.
15652	<i>Chelidonium</i>	F.	
15653	<i>Lycopodium compactum</i>	F.	
15654	<i>Claphoglossum</i>	F.	
15655	<i>Erigeron</i>	H.	F. pappus grey.
15656	<i>Stipa</i>	H.	
15657	<i>Guaphalium</i>	H.	heads gr. y.
15658	<i>Jamsonia</i>	F.	
15659	<i>Guaphalium</i>	H.	heads silvery w.
15660	<i>Scilla cuspidatum</i>	H.	F. pet. w.
15661	<i>Geranium</i>	H.	pet. p.
15662	<i>Alchemilla orbiculata</i>	H.	sep. y. w.
15663	<i>Ranunculus</i>	H.	
15664	<i>Lycopodium</i>	F.	
15665	<i>Valeriana</i>	H.	cor. w.
15666	(m. d. a. t.)	H.	pet. br. y.
15667	<i>Plantago</i>	H.	bracts purp. ant.
15668	<i>Sisymbrium</i>	H.	per. y.
15669	moss	on soil	
15670	(umbel.)	H.	
15671	(umbel.)	H.	pet. w.
15672	<i>Veronica</i>	H.	cor. deep. b.
15673	(umbel.)	H.	pet. w.
15674	<i>Matrastrum</i>	H.	pet. purp.
15675	<i>Carex</i>	H.	
15676	<i>Werneria</i>	H.	rays w.
15677	<i>Erigeron</i>	H.	infl. w.
15678	<i>Castilleja</i>	H.	bracts r.
15679	<i>Halleria</i>	H.	cor. y.
15680	<i>Halleria</i>	H.	cor. gr. w.

[illegible]

- 15681 *Scaevola*
 15682 *Bidens*
 15683 *Hieracium*
 15684 *Espeletia* "frailigone"
 15685 *Ranunculus*
 15686 *Andropogon*
 15687 *Eupatorium*
 15688 *Verbena*
 15689 *Eupatorium*
 15690 *Miconia*
 15691 *Cestrum*
 15692 *Solanum*
 15693 *Werneria*
 15694 *Hypericum*
 15695 *Jamnesia*
 15696 *Cyrtopteris*
 15697 *Odontosoria*
 15698 *Miconia*
 15699 *Polystichum*
 15700 *Struthiopteris*
 15701 *Polypodium*
 15702 *Eupatorium*
 15703 *Graphalium*
 15704 *Erigeron*
 15705 *Solanum*
 15706 *Senecio*
 15707 *Elaphoglossum*
 15708 *orchid*
 15709 *Elaphoglossum*
 15710 *Elaphoglossum*
 15711 *Senecio*
 15712 *orchid*
 15713 *Polystichum*
 15714 *Peperomia*
 15715 *Epilobium*

low, cor. w.
 D. pros. cal. deep n
 H. rays br. y. cor. o.
 H. cor. br. y.
 H. coarse, leaves & spikes
 H. basal, sep. y.
 H. 3-4' clumps invol. q. cor. lobes
 H. 10-15' rays & cor. br. y. become
 T. 5-10' cor. & style
 T. 5-10' crown nearly spher.
 T. trunk 4-5' h. 8" diam.
 S 5-7' cor. deep pu. out.
 H. lobes 9' at mar.
 H. cor. li. b. ant. y.
 H. rays w.
 S semi-pros. pet. y. sta. 50-
 F.
 F.
 F.
 S compact pet. pu. ant. br.
 F. 2-5'
 F. caudex upright 4-8" diam.
 F. 1/2-2' high, base of stem
 F. to 2' cor. & sta. w.
 H. heads gr. y.
 H.
 H. slender pet. light p.
 H. erect cor. br. y.
 H. slender
 H. ep. sep. green. not. with
 F. chl. y. q. prox. pu. dist.
 F.
 T 10-12' cor. y.
 H. ep.
 F.
 F. H.
 H. pet. de. p.

Dec. 20
 Rec. 24 paramo of Vegas

Dec. 21
 edge of paramo

2700 3
 3800

3600-
 3700

3

1

3

2

2

2

2

2

paramillo

- 15716 Hieracium
 15717 Rubus
 15718 lichen
 15719 lichen
 15720 moss
 15721 Orthrosanthus
 15722 Libodia
 15723 lichen
 15724 moss
 15725 hepatic
 15726 Polypodium
 15727 Polypodium
 15728 Lipsoloma
 15729 Peperomea
 15730 Eupatorium
 15731 (melast.)
 15732 Osteolemus
 15733 Begonia
 15734 Fuchsia
 15735 Buddleia
 15736 Geranium
 15737 Weinmannia
 15738 Laurus
 15739 Stellaria
 15740 Polypodium triangulare
 15741
 15742 moss
 15743 hepatic
 15744 Eupatorium
 15745 Eupatorium
 15746 Polypodium
 15747 Polypodium
 15748 Polystichum
 15749 lichen
 15750 moss

H. heads y.
 V. woody pet rich p.
 soil
 soil
 soil
 H. per. br. br.
 T. 30-40' cor. r, yish. dust
 on tungs
 on decaying wood
 on decaying wood
 on trees on 722
 on trees
 H.
 H. on trees style on 722
 S. 7-10' style yish g.
 4 slender pet. yish. w.
 ? Fr. y. g.
 H. succ. pet. w. stay y.
 (V. or S.?) sep. pet. full r. ant. cream
 T. cor. b.
 H. pet. deep p.
 7-10' pet. w.
 H.
 H.
 F. pet. mag. ant y.
 S. on decaying wood
 H. woody cor. grayish w.
 S. 5-10' lobes styles pale
 cor. g. prox June w. dist. styles + ant. w.
 F.
 F.
 F.
 soil
 soil

Loc. ~~34~~ paramillo

~~bet. above Vega~~

3600
3200

3400
3200
3400
3600

2

34
1

34

- 15751 moss
- 15752 moss
- 15753 moss
- 15754 moss
- 15755 Elaphoglossum
- 15756 Orobanchus
- 15757 Dasylirium
- 15758 Odonotaria
- 15759 Arenaria minuta
- 15760 moss
- 15761 moss
- 15762 Solanum
- 15763 Eupatorium
- 15764 Matricaria
- 15765 Senecio
- 15766 Oxalis
- 15767 Steltaria
- 15768 Hieracium
- 15769 Dasylirium
- 15770 Agrostus
- 15771 Elaphoglossum
- 15772 Stipa
- 15773 grass
- 15774 Asplenium
- 15775 Elaphoglossum
- 15776 Eupatorium
- 15777 (Melastomaceae)
- 15778 Asplenium
- 15779 Viola
- 15780 Notholaena
- 15781 (comp.)
- 15782 Solanum
- 15783 Phytolacca
- 15784 Boweria
- 15785 Lycopodium

soil
 soil
 soil
 soil
 F. on soil
 y. shrubby pet. dep.
 H.
 F.
 H. repent. pet. w.
 soil
 soil
 S. 6-10' F. cor. cream
 S. 4-5' cor. w. ant. y. very
 H. sty. light p. wide
 H. ray. br. y.
 H. infl. green. y.
 H. succ. pet. y.
 H. repent. pet. w.
 H. infl. y.
 H.
 H.
 F. on rocky bank
 H.
 H.
 F. on rocks
 F. on rocks
 S. 5-8' cor. sty. cream
 S. 3-4' pet. rich. alb. ant. bry. ~~between above Vega~~
 F. on rocky banks
 H. rep. pet. light b, striped with darker b.
 F. 8-12' lobes y. sty. green
 S. 3-4' cor. cream
 S. 1-3' cor. dull p. b.
 H. 1-3' sep. + fil. dep. ~~ant.~~
 V. herb. lower sep. lg. ~~ant.~~
 F. ~~anther y. unpotted~~

Dec. 21 paramillo

3400
~~3300~~
 3600

~~between above Vega~~
 ant. bry. & exposed banks above Vega
 thickset

~~3300~~
~~3300~~
 3400

15751
 15752
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 15783
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 15785

- 15786 *Elaphoglossum*
 15787 *Stipa*
 15788 *Pernettya*
 15789
 15790 *Minimus*
 15791 *Geranium*
 15792 *Lycopodium*
 15793 *Bahneria* "cl
 15794 *Thibodia*
 15795
 15796 *Gaultheria*
 15797 *Elaphoglossum*
 15798 *Elaphoglossum*
 15799 *Lycopodium*
 15800 *Vaccinium*
 15801 *Melastoma*
 15802 *lichen*
 15803 *Thibodia*
 15804 *Alsophila*
 15805 *Sisyrinchium*
 15806 *Thibodia*
 15807 *Elaphoglossum*
 15808 *Elaphoglossum*
 15809 *Polypodium*
 15810 *Pitticantlus*
 15811 (*Orchid*)
 15812 *Odontocoria*
 15813 *Polypodium*
 15814 *Lycopodium*
 15815 *Gaultheria*
 15816 *moss*
 15817 *hepatic*
 15818 *Trichomanes*
 15819 *Peperomia*
 15820 *Thibodia*

F. on bank.

Dec. 21 exposed hillides above Veg.

much paler dist

3 200
3 400

2

1

1

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1

2

3300-
3200

- 15821 orchid
 15822 Bromelia
 15823 Senecio
 15824 Hypericum
 15825 Gaultheria viscosa
 15826 lichen
 15827 Gnaphalium
 15828 grass
 15829 Liabum
 15830 grass
 15831 Osteonales
 15832 Ruta
 15833 Matricaria
 15834 comp.
 15835 grass
 15836 Achyrocline
 15837 Gaultheria
 15838 Hieracium
 15839 Sestrum
 15840 Weinmannia
 15841 Eupatorium
 15842 ~~Eupatorium~~
 15843 Tillandsia
 15844 Elaphoglossum grandifolium
 15845 Elaphoglossum
 15846 Polypodium angustifolium
 15847 Polypodium
 15848 Polypodium
 15849 Pteris
 15850 Solanum
 15851 Hypericum
 15852 Alsophila
 15853 Weinmannia tomentosa
 15854 Polypodium anale
 15855 Gaultheria alba

- E.H. fr. g.
 E.H. bracts r.
 S. 3-4' heads y.
 S. 2-4' much-bran. pet. y.
 S. 4-7' sep. r. cor. p.w.
 on twigs
 H. I woody heads plant w.
 H.
 S. 8-10' ray ls. y. cor. d. y.
 H. 6-15'
 T.
 H. cogre, pet. w.
 H. odor. ray w. cor. y.
 S. 2-3' rays w. ant. pu.
 H.
 H. 4-3'
 S. 2-4' cor. li. p.
 heads y.
 T. 15-20' cor. tube r.
 S. 6-10' sta. w.
 T. 20-30' cor. w. sty. b.w.
 E.H. infl. o. r.
 F. on soil
 F.
 F.
 F. on tree
 F.
 T.
 S. 2-3' cor. cream. ant. y.
 F. trunk 20' fr. (incl. st.) 6'
 T. 20-30'
 F.
 S. 7-9' br. x. cor. w.

Dec. 21 woods

above Vegas

3200
3300

e. h.

edge of woods.

e. h.

woods

e. h.

lobes gr. y.

woods

e. h.

3120-
3200

- 15856 *Hypericum*
 15857 *Erythrodia*
 15858 *Polypodium*
 15859 *Stelis*
 15860 *Eupatorium*
 15861 *Cyathea*
 15862 *Moringa lucida*
 15863 *Moringa*
 15864 *Viburnum* "garrocha"
 15865 (rub.)
 15866 (laur.)
 15867 (laur.)
 15868 *Vaccinium*
 15869 *Mikania*
 15870 *Epidendrum fimbriatum*
 15871 *Zibodia*
 15872 *Phoradendron*
 15873 *Tillandsia*
 15874 *Claphoglossum*
 15875 *Lepanthes*
 15876 *Asplenium salicifolium*
 15877 orchid
 15878 *Stelis*
 15879 *Melastoma* "marcato"
 15880 *Zibodia*
 15881 lichen
 15882 *Saccoloma*
 15883 *Claphoglossum*
 15884 moss
 15885 *Polypodium*
 15886 *Allophila*
 15887 lichen
 15888 moss
 15889 orchid
 15890 *Palicourea*

S 1-3' pet. y. sta. ± 20
 H. terr luds g. w.
 F. on tree
 H. ep.
 H. $\pm 2\frac{1}{2}'$ cor. + sty. w.
 T. F.
 S. ~~6-8~~ 5-7
 S. ~~5-7~~ 6-8
 T. 12-16' cor. w.
 S. erect, 8-12'
 T.
 T.
 S. cor. w.
 V. woody cor. sty. w.
 H. terr. sep. light p. to w.
 S. cor. dark to pale p.
 E. H. on Permettya
 E. H.
 F. on soil
 E. H.
 F.
 E. H.
 E. H. sep. pale g.
 T. trunk 3-8" pet. rich pur. or
 S. on woody v. cor. br. r.
 on tree trunks
 F. fr. (incl st.) 3-5'
 F.
 on soil
 F.
 T. F.
 on tree
 soil
 H. ep. seg. r.
 S. slender cor. pale y. at base
 S. $\pm 6'$

Dec. 21 e. h.
woods

3020-
3200

\$4

7

2708-
3000

lrp l.p, pur. dot. dry banks.
 e. h.
 woods

sta. p. proz w. chł. sty. p.

Radist. lobes 9.

15891		S. 6-8'	cor. g. w.
15892	moss	on soil	
15893	moss	on soil	
15894		T. 15-20'	pet. w.
15895	Quercus "roble"	T. 30-60'	
15896	Miconia "tuno"	S. 6-10'	pet. p.
15897	Weinmannia "luseuillo"	T.	
15898	Mundilebeckia	V. woody	stems br. r.
15899	Psychotria	S. 6-12'	cor. p.
15900	lichen	on soil	
15901	lichen	on soil	
15902	moss	on soil	
15903	Lycopodium "madrillo"	F.	
15904	Pteranopteris bancroftii	F.	
15905	(gent.)	S. 8-12'	cor. rich p. y. poor in
15906	(moss)	T. 15-25'	faintly y. poor
15907	Viola "granoso"	H. repent.	cor. w. faintly
15908	hepatic	on decaying wood	pet. viol. pur. striped
15909	Hymenophyllum	F. on tree	(used for fevers)
15910	Polypodium	F.	
15911	Passiflora longipes	V. herb.	
15912	Epidendrum	H. terr.	per. p. col. deep p.
15913	Gaultheria "cauraxero"	S. 8-12'	y. at top
15914	Marchantia	on soil	bracts rich p. pale
15915	Ficus	T.	
15916	moss	on soil	
15917	moss	on soil	
15918	Zibouchea	S.	
15919	Mitella	T. 15-20'	cor. pale p. to w.
15920	Hypocnemum	S. 2-3' ascending	pet. y. & sta. w.
15921	moss	on soil	pet. y.
15922	moss	on soil	
15923	Ochlopterus	F.	
15924	moss	on soil	
15925	moss	on soil	

Dec. 21 woods

2700-3000

thickets e.l. thickets

Woods. Dec 21

- 15926 *Passiflora lactosa* V. herb. descr. elev.
 15927 *Rauvolfia* H. sep. y.
 15928 *Odontosoria* F.
 15929 *Odontosoria* F.
 15930 (*Bromeliad*) E.H. upl. br. r.
 15931 *Suriana* T. 20-25'
 15932 bamboo V. herb.
 15933 *Eupatorium* S. 8-10' cor. sty. rich p.
 15934 *Melastoma* S. pet. rich p.
 15935 *Passiflora hyacinthiflora* V. herb.
 15936 *Splachnum* on soil
 15937 *Clusia* T. 35-40' wide spread
 15938 *Ficus* T.
 15939 T.
 15940 *Lycopodium* F.
 15941 *Melastoma* T.
 15942 *Asplenium* on trees pet. br. r.
 15943 *Piper* T. 20' tr. bran. near sum spathe p. int. r. in
 15944 *Polypodium* F. rep. at base of trees
 15945 T.
 15946 orchid H. terr. pet. w.
 15947 (*Eric.*) S. 4-6' cor. w.
 15948 *Asplenium salicifolium* F. on trees
 15949 *Pilea multiflora* H. succ. rep.
 15950 *Asplenium macrocarum* H. at base
 15951 *Passiflora biflora* F.
 15952 V. herb.
 15953 *Urena impressa* V. woody
 15954 *Antheurium* S. 6-12'
 15955 *Crythrodos laigifolia* H. terr. spathe g. int. paler m.
 15956 *Crythrodos caulescens* H. terr. becoming deep p.
 15957 *Polypodium flexinervum* H. terr.
 15958 *Bromelia viridia* F. leaves basal cor. w.
 15959 *Elaphoglossum ligulatum* H. terr.
 15960 *Miconia* S. 8-12' pet. w.

Dec. 21. thickets
fields
e. h.

woods

pet. g. y.

Dec. 23. w. to
woods

above Vegas

Vegas

2800-
3000

2600-
2900

1

1

1

2

#4

1

3

1

2

1

2

#4

#4

- 15961 (juncus)
 15962
 15963 *Carludovica*
 15964 *Autheumium microspathum*
 15965 *Autheumium*
 15966 *Erythroxides attenuata*
 15967 *Psychotria*
 15968 *Alseodaphne* *Trichydanis microphylla* (Hb.) J. Ag.
 15969 hepatic
 15970 moss
 15971 lichen
 15972 *Asplenium attenuata*
 15973 *Polypodium luteum*
 15974 lichen
 15975 *Peperomia variagatum*
 15976 *Centropogon*
 15977 *Miconia*
 15978 *Thibodia*
 15979 (loganiaceae)
 15980 *Thibodia*
 15981 hepatic
 15982 hepatic
 15983 moss
 15984 *Psychotria*
 15985 *Ilex*
 15986 *Columnea*
 15987 *Thibodia*
 15988 *Vaccinium*
 15989 *Weinmannia obtusifolia*
 15990 *Cinchona*
 15991 *Quercus*
 15992 *Trichomanes capillaria*
 15993 *Miconia*
 15994 *Polypodium angustifolium*
 15995 *Polypodium macrodonum* (entire leaves)

H. bran. scan. cor. o.
 H. low. bran. cor. g. w.
 H. alcau.
 H. terr.
 H. terr. spathe grass g.
 H. terr. spathe making ju.
 H. terr. per. w. column y.
 H. terr. fr. d. g.
 S. F. caudex 2' stipe 2' fr. 4'
 on soil
 on soil
 on trees + soil
 F. on trees
 F. fr. drooping
 on trees
 H. on trees
 V. woody cor. pale p.
 V. herb. cor. + pass. g. w.
 V. woody
 S. slen.
 S. 8-15' bracts p. cal. y. g. prox. w. dist. br. at mar. cor. r. p.
 on soil
 on trees, drooping
 on decaying wood
 S. 6-12' fr. w.
 S. 10-12' cor. g. fr. w.
 H. cor. br. y.
 S. 10-20' cal. p. style p.
 S. 8-15' cor. light p. paler dist.
 S. 10-12' perian. cal. + style.
 T. 30-40' cor. b.
 T. 12-20'
 F. on trees
 S. 8-12' pet. + fil. light pale p.
 F. li. g.
 F.
 F.

Rec. 22 woods

Vegas

2600-2900

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edge of woods

fil w. ant. br. paler dist.

woods
 l. of woods
 woods.

- 15996 *Polypodium pumila*
 15997 (vaccin.)
 15998 *Quercus*
 15999 *Lycopodium*
 16000 *Meibomia*
 16001 *palu*
 16002 *moos*
 16003 *Boraria*
 16004 *moos*
 16005 *Cyperus macrochaetus*
 16006 *Glucoides*
 16007 *Fragaria*
 16008 *moos*
 16009 *Eupatorium*
 16010 *Liabum*
 16011 *Milksania*
 -16012 *Cuspea*
 16013 *Solanum*
 16014 *Tibouchena*
 16015 *Veronica*
 16016 *Spergynolium*
 16017 *Thalictrum podocarpum*
 16018 *Equisetum quinguedentum*
 16019 *Pilea crenata*
 16020 *Pilea rotundifolia*
 16021 *Polypodium ciliatum*
 16022 *Trichomanes elongatum*
 16023 *Hydrocotyle Humboldtianum*
 16024 *Sellaginella*
 16025 *Pilea atropurpurea*
 16026 *moos*
 16027 *Tropaeolum*
 16028 *Peperomia diforma*
 16029 *moos*
 16030 *moos*

F. 8-12'
 T.
 F.
 H. stem. b. pu. wings
 P. style 3' + keel lar.
 fr. 3'
 on decaying wood
 H. cor. w.
 on decaying wood
 H.
 H.
 H. pet. w.
 on decaying wood
 S. 8-15' cor. pap. li. straw col.
 styles b. stig. w.
 S. 10-12' rays br. y. cor. y.
 V. woody. pappus li. b.
 H. ~~transverse~~ pet. p. to w.
 T. 10-12' trunk 2" diam cor. v.
 pet. pale p. to w. ant. y.
 H. sta. deep. lobes
 H. cor. ~~transverse~~ y. g. ~~lobes~~ lobes
 cor. pu. striped
 H. per. y. $\pm$ 1 cm diam
 H. coarse sep. q. ant. y.
 F.
 H. succ. repent
 H. at base to 3' long
 H. succ.
 H. on wet rocks
 F. dependent from branches
 F. dependent from branches
 H. repent in
 H. wet soil
 F. in wet soil
 H. succ. repent whole plant
 deep pu.
 on turps
 V. herb. cal. spur red, lobes g.
 cor. deep pu. striped with g.
 H. succ. ~~conchyl~~
 H. app. to trunks
 on turps
 " "

Sec. 22

woods
edge of wood

Vegas

2600- Fu
2900

field
edge of woods
woods
field
woods
field

woods.
edge of woods

field
edge of woods
field

thicket
~~for~~ marsh
dense woods along stream

sta. bl. per. ant. steel bl.

16031	<i>Elaphoglossum parvulum</i>	F on trees
16032	<i>Salvia</i>	H. to 2 1/2' cor. rch. p. w. at
16033	<i>Cyathea</i>	H. up at base base
16034	<i>Elaphoglossum philoglyphum</i>	F. trunk 3' h. fr. 7'
16035	<i>Peperomea</i>	H. on tree
16036	<i>Arctium rotundifolium</i>	H. on tree spathe q.
16037	<i>Begonia</i>	S. 2-4' long. pet w.
16038	<i>Riccia</i>	S. wide-spread. sta. y.
16039	<i>Siparuna</i>	on leaf of 16036
16040	<i>Coccoloba</i>	T. 15-20'
16041	<i>Polypodium</i>	H. 2-3' cor. w. fr. br. b.
16042	<i>hepatic</i>	F. on tree
16043	<i>Pilea viridis</i>	on leaf of 16150
16044	<i>Palu</i>	H. on wet forest floor
16045	<i>Palicourea</i>	D. trunk 3' h.
16046	<i>Peperomea</i>	S. stem 1/2 - 3/4 diam
16047	<i>Arctium hastatum</i>	S. succ. stem repeat
16048	<i>Lagerstroemia</i>	H. at base, to 4' h.
16049	<i>Asplenium</i>	H. sp. spathe q. becoming b.
16050	<i>hepatic</i>	T.
16051	<i>Piper</i>	F.
16052	<i>Canva</i>	on leaves
16053	<i>Polypodium suspensum</i>	S. 3-4'
16054	<i>Pilea</i>	H. terr. br. deep r.
16055	<i>Peperomea</i>	F. on trees cor. light y.
16056	<i>Psychotria</i>	H. terr. repeat at base, to 2'
16057	<i>Cibotium</i>	H. succ.
16058	(rub.)	H. terr. cor. (faint) yellow
16059	<i>Jouanina</i>	S. 5-10' lobes q.
16060	<i>Erythraea prescottia</i>	F. trunk ± 1'
16061	<i>Agrostis</i>	V. woody
16062	<i>Carex</i>	F.
16063	<i>Cyperus</i>	H. terr. 3 sep. grasses y.
16064	<i>Hapalanthus</i>	H. 2 sep w.
16065	<i>Juffa</i>	N. heads w.
		V. herb. cor. y.

23
Dec. 22 dense woods along stream U.

3600
2900

tract w. striped with p. stem per. q.

lip. w. g. dotted. rocky bank
marshy meadow

meadow

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- 16066 Eupatorium
- 16067 Mentha arvensis
- 16068 Pityrogramma tartarea
- 16069 Polypodium
- 16070 Lichnum
- 16071 Equisetum
- 16072 Viola major
- 16073 Hydrocotyle
- 16074 Gunnera
- 16075 Oxalis
- 16076 Polypodium
- 16077 Columnea
- 16078 Rondeletia
- 16079 Hydrangea
- 16080 Polyrhiza
- 16081 Sarauja
- 16082 Pilea
- 16083 Randia
- 16084 Miconia
- 16085 Sarauja
- 16086 Lactylis
- 16087 Hibiscus
- 16088 Viola prolifera
- 16089 Hydrangea
- 16090 Thibodia
- 16091 Jacobinia
- 16092 Salvia
- 16093 Pilea daucifera
- 16094 Relbunium
- 16095 Tropaeolum
- 16096 Asplenium
- 16097 Pilea abrupta
- 16098 Asplenium
- 16099 Clematis
- 16100 Thibodia

- S. with bran. bracts w. prox. q. dist.
- H. with woody cor. w. p. spot. at the base
- F. on moist banks
- F. on trees
- H.
- F. moist pet. deep p. prox. pale
- H. soil violet dist. lippalag.
- H. moist soil
- H. coarse, leaves spikes 2-4' h.
- H. to 3-4' across
- H. erect, leaves p. ting. beneath.
- H. succ. pet. y.
- F.
- H. proc. woody, fr. w. prox, deep p. dist
- V. herb.
- S. with droop. bran, bracts q. w.
- H. 8-12' coarse, 56-12' rays y.
- H. 4-6' pet. q. out, q. w. in.
- T. succ. plant purplish throughout
- H. on rocks, moist.
- S. 8-12' cor. w.
- S. 8-12' pet. w.
- S. bran. proc. pet. w. ant. y.
- H.
- S. bran. droop. pet. r.
- S. 7-10' stems repent
- H. moist soil
- V. herb. pet. deep r.
- S. 8-15' sterile pet. light p. and inner q. r. p. lobed
- V. woody fil. p. prox, paler dist.
- V. slender pet. blunt o. fil. pet. much paler prox, ant. deep brown.
- H. 3-4' cor. q. prox, red p. dist.
- H. succ, stem repent at base
- V. herb.
- V. herb. ~~caten~~ spurp. cal. lobes q. pet. deep pu.
- F. pedicel q. prox, ~~or~~ much deep p. dist
- H. 3-4' quae.
- H. 3-4' fr. droop.
- F. on trees, fr. droop.
- V. woody F. w.
- S. 8-10' fr. dark q.

23
 Rec. 22 edge of woods
 → cor. light p, lobes + styles rich p. Vegas

2600.
 2900

field

no, striped with p. marshy borders of stream

edge of woods along stream

pet. deep p. faintly striped with w.
 (len)

marshy borders of stream
 edge of woods along stream
 marshy borders of stream

l. w.
 ant. b. paler dist. style q. w. prox, pale p. dist. woods

e. w. along stream

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- 16101 Cassia
 16102 Jussia
 16103 Rubus
 16104 Polygala
 16105 Lobelia
 16106 Cissampelos
 16107 Phlox rugosus
 16108 Cordia
 16109 Weinmannia
 16110 Suranta
 16111 Passiflora
 16112 Rosa
 16113 Eupatorium
 16114 Euphorbia
 16115 Prascotia
 16116 Anoda
 16117 Ageratum
 16118 Saranya
 16119 Psychotria
 16120 Portulaca
 16121
 16122 moss
 16123 Equisetum giganteum
 16124 (comp)
 16125 hepatic
 16126 Pilea
 16127 Mikania
 16128 Miconia
 16129 lichen
 16130 Symplocos pterocarya (W) (Lk.)
 16131 moss
 16132 moss
 16133 Boehmeria
 16134 Weinmannia
 16135 Epi deodoran

- T 12-15' pet. y.
 H. $\pm 2'$ pet. y.
 V. wet soil pet. pale p.
 V. woody pet. deep p. paler at apex
 H. cor. b.
 H. F. g.
 V. herb. F. clusters reddish
 S 4-8'
 S 8-12'
 T 10-12' sta. w.
 S 7-10' with cor. p. midrib b.
 S elong. bran fr. o.
 V. herb. sep. coriaceous, br. ant, y. g. in. pet. w. corona (cleavage)
 S low on pet. p. operculum q.
 S moist bank. cor. g. lobes rich p.
 S 7-10' sty. rich p.
 H. pro.
 H. ter. sep. g. w.
 H. pet. w. prox, b. p. dist
 H. cor. w. sty. p.
 T 15-18' pet. w. ~~at~~ also y.
 S 8-12' tube y. sep. g. p.
 H. ter. buds br. g.
 S 8-12' elong. bran.
 on tree
 F $\pm 5'$ h.
 H. coarse cor. w. prox, p. striped dist
 H. 6-7'
 on tree stem
 T succ. rep. at base to 3' h.
 V. woody cor. & sty. g. w.
 V. below fl. buds g.
 T 12-15'
 on tree
 F. stipe 4' br 6'
 F. calyx upright
 on tree
 on tree
 T 15-20' per. sep. light g. antn
 T 12-20' leaves br. g.
 H. ep. ~~thick~~
 F. light g. throughout

- Rec. 23
 clearing
 m. b. of stream
 field
 e. w. along stream
 clearing.
 ant, y. g. in. pet. w. corona (cleavage)
 operculum q.
 field.
 e. w.
 exposed hillside
 woods
 edge of woods
 woods

Vegas

2600-
 2900

P.T.

- 16136 *Alsophila*
 16137 *Piper*
 16138 (acanth.)
 16139 *Psychotria*
 16140 *Plantago*
 16141 *Juniperus*
 16142 *Loumaria cordata*
 16143 *Hymenophyllum*
 16144 *Hymenophyllum*
 16145 *Hymenophyllum*
 16146 *Hymenophyllum*
 16147 *Hymenophyllum*
 16148 *Hymenophyllum*
 16149 *Epipactis*
 16150 *Laelia*
 16151 *Stelis*
 16152 *Tepanthus*
 16153 *Tepanthus*
 16154 *Tepanthus*
 16155 *Tepanthus*
 16156 *Atalapha Mayilliana*
 16157 *Mayilliana*
 16158 *Mayilliana*
 16159 *Vernonia*
 16160 *Lioscorea*
 16161 *Eclitites*
 16162 *Peperomia*
 16163 *Ipania*
 16164 *Eupatorium*
 16165 *Vernonia*
 16166 *Mikania*
 16167 *Verbena*
 16168 *Centropogon*
 16169 *Polygala*
 16170 *Solidanum*

T. F. ^{slip} 3' usually much
 blacker than in spec. / 6-7'
 S. 2-4'
 H. coarse,
 5-8'
 S. 7-6'
 H.
 40-50'
 H. pro. pet. w.
 F.
 F. on trees
 F. on trees
 F. on trees
 F. on trees
 F. on trees
 F. on trees
 H. terr.
 H. ep. + terr.
 H. ep.
 H. ep.
 H. ep.
 H. ep.
 H. ep.
 H. ep.
 H. ep.
 H. ep.
 V. woody. pappus w.
 V. herb.
 V. herb. cor. lobes pur. spotted toward apex.
 H. fleshy
 V. herb. cor. cream w.
 H. coarse, cor. + sty. pure w.
 3-5'
 V. woody pappus w.
 V. woody cor. cream w.
 S. 4-7' rays y.
 V. woody cor. p.
 H. 3-4' pet. w. prox. pale p. dist.
 S. 8-12' cor. p., w. striped in.

23
 Rec. 22 wood

Vegas

2800
 2900

clearing

field
 woods

Dec. 24. open banks bet. Pied. + Las U.
 edge of woods

woods
 edge of woods

S-3

2000
 2200

28131

28131

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1781

- 16171 Eupatorium
- 16172 Turnera
- 16173 Chamaefistula
- 16174 Cordia corymbosa
- 16175 Passiflora
- 16176 Ficus
- 16177 Calliandra
- 16178 Solanum grandiflorum "toron"
- 16179 ~~Leucaena~~ Serjania
- 16180 Eupatorium
- 16181 Metastelma
- 16182 Vernonia
- 16183 Bursora
- 16184 Trixis
- 16185 Serjania
- 16186 Gossypium
- 16187 ~~Opuntia~~ Jacquinia
- 16188 Jatropha
- 16189 ~~Leucaena~~ Lycopodium
- 16190 Machaeranthera
- 16191 Hibiscus
- 16192 ~~grasses~~
- 16193 Cordia
- 16194 Presonia
- 16195 Guaiacum
- 16196 Vernonia
- 16197 Hemistylis
- 16198 Pamelina
- 16199 Peperomia
- 16200 Pilea
- 16201 Acaecia
- 16202 Lycopodium
- 16203 Rorippa
- 16204 Bauhinia
- 16205 Alcaia

S 5-8' cor. g. w. prox.
 H. 1 1/2-2' pet. y. p. at apex, sty. w.
 T 30-40' H. at base br. blotched at base
 S 4-6' V. herb. sep. grass g. out
 V. herb. g. w. in, pet. w. p. tinged
 V. herb. at margin. Corona (leaves)
 T 5-15' cal. grass g. cor. g. paler
 T 10-20' prox. pale rich p.
 V. woody cor. br. l. paler ant.
 S 6-10' drap. cor. w. light l. at midrib in.
 V. herb. cor. tube y. lobes paler y.
 V. woody cor. w.
 T 10-12' H. coarse rap y. cor. y.
 H. or low 3 to 5' fop. greyish w.
 V. herb. bracts g. cal. g. w. spotted with dark br.
 T 8-15' petals p. paler prox. style w. spotted dist with dark br. fil. pale y.
 V. herb. cor. b. paler prox.
 T 8-12' pet. deep r. ant. y.
 V. woody cor. y.
 T 15-18' S 6-10' cor. r. o. paler dist.
 H. bran. pros. sty. w.
 T 10-12' V. herb. cor. br. n.
 V. herb. pap. w.
 S. with droop. bran. 19-15' cor. w. fil. w. ant. y.
 V. herb.
 H.
 F.
 F.
 V. herb. cor. y. ting milk p.
 T 15-20' fr. r.
 T 15-18'

slightly woody

Rec. 24 edge of woods bet Pied & JasO.

thicket
 Dec. 27 thicket

Piedecuesta
 Florida

roadside
 ant. y. at throat
 Dec. 28. northern slopes, Buc. plateau
 (used as an insect house)

valley of R. Surata

rocky boulders

thickets

2000-
 2200
 1400-
 1600
 1000
 900
 800-
 1000

400-
 600

U-4,5

24

- 16206 *Tresima*
 16207 *Adiantum*
 16208 *Piper*
 16209 *Pachira*
 16210 *Nyctocarpa*
 16211 grass
 16212 *Piper*
 16213 *Guazuma*
 16214 *Eupatorium* *Nyctis*
 16215 *Calliandra*
 16216 *Piper*
 16217 *Lycopodium*
 16218 *Merrania*
 16219 *Cordia*
 16220 *Polygala*
 16221 *Epideudra*
 16222 *Epideudra*
 16223 *Passiflora* (16175?)
 16224 *Peperomia* *muscosa*
 16225 *Erioloma*
 16226 *Wattleria*
 16227 *Serjania*
 16228 *Eupatorium odoratum*
 16229 *Plumbago*
 16230 *Ficus*
 16231 cactus
 16232 *Serjania*
 16233 *Comp.*
 16234 *Antennaria*
 16235 grass
 16236 *Uimcaropia*
 16237 *Cissampelos*
 16238 *Pteris*
 16239 *Pterocarpus* (malpighi)
 16240 *Piper*

- V. herb. pet g. w.
 F. 3-6'
 S. 10-12' foliage mostly at summit bracts brown
 T. 8-12'
 H. bran droop to 5'
 S. 12-15'
 T. 20-30'
 S. 3-6' cor. b, paler prox. ant. y.
 T. 3-4' ant. w.
 S. 25-35' or small T. 12-20'
 F. woody cor. w.
 V. 4-7' cor. w.
 H. woody at base pet. w. ting. with p.
 H. bran semi-proc
 H.
 V. herb.
 H.
 S. 4-6' pet. w. sta. w.
 S. 4-8' cal. paleq. pet. w. ant. y. w.
 V. herb. cor. w.
 S. 6-8' cor. pale b, sty. b.
 S. 3-6' cor. w. ant. b, fil. w.
 T. 40-60' stig. + sty. w.
 H. to 8" li.
 V. herb.
 S. 3-4' cor. w, stig. pale y.
 H. cor. fatter reddish
 H. to 7' pup. (?) cream w.
 H. 1-3' stig. r. brown.
 V. herb. pet. pale lav.
 F. 12-15'
 S. 3-6'

Rec. 28 thickets valley of Surata' R.
 rocky banks
 thickets

400-600

exposed banks.

thickets
 open banks

thickets

clearing
 open banks
 thickets

16241	<i>Trema microanthum</i>	T. 10-15'	
16242	<i>Bauhinia</i>	S. or low T. 8-12'	pet. w.
16243	Piper <i>Acalypha</i>	S. 10-15'	
16244	<i>Eupatorium</i>	S. 3-5'	cor. bl. sty. bl.
16245	<i>Piper</i>	S. 12-15'	
16246	<i>Amorpha</i>	V. herb.	cor. deep lav.
16247	<i>Psidium</i>	T. 10-12'	pet. w. fil. w.
16248	<i>Miconia</i>	S. or small T. 4-8'	pet. w. fil. w.
16249	<i>Solanum</i>	S. 3-6'	pet. bl. ant. y.
16250	<i>Moraea</i>	S. 5-8'	pet. y.
16251	<i>Wissadula</i>	S. 5-9'	pet. y.
16252	<i>Rhus</i>	T. 12-15'	pet. w.
16253	<i>Dioclea</i>	V. herb.	stand. pump., deep pump, center; wing pump; reel wh.
16254	<i>Phoradendron</i>	Ep. S. on melia	simple at apex
16255	<i>Mimosa</i> "galinero"	T. 8-40 ft.	st. wh.
16256	<i>Guzmania</i>	T. 20-25'	pet. wh.
16257	"uo"	S. 4-6'	pet. gr. wh.
16258	<i>Pilea microphylla</i>	H. succ.	
16259	<i>Peperomia</i>	H. succ.	
16260	(100.)	V. woody	pet. w.
16261	<i>Sesuvium</i>	V. woody	pet. w.
16262	<i>Hibiscus</i>	S. 4-5'	pet. y.
16263	<i>Eugenia</i>	S. 6-9'	fr. br. n. pet. w.
16264	<i>Cassia</i>	H. shrubby 2-3'	
16265	<i>Lavalla</i>	H. very viscous	
16266	<i>Jussiaea</i>	S. 3-5'	
16267	(comp.)	H. shrubby 2-3'	pet. y.
16268	<i>Calliandra</i>	V. woody	rays o. y. cor. lobes br.
16269	<i>Helicteres</i>	T. 25-30'	
16270	<i>Acalypha</i>	T. 15-20'	
16271	(comp.)	T. low with droop. branch	pet. w.
16272	<i>Warszewiczia</i>	S. 10-15'	ray. y.
16273	<i>Cordia</i>	S. 8-12' bracts br. n.	cor. gr. y. r. lobes
16274	<i>Croton</i>	S. low 2 1/2-4'	cor. w.
16275	<i>Vernonia</i>	H. 2' woody at base	
		S. 3-4' stem simple	cor. incl. p. pappus w.

Rec. St. clearing
thickets

valley of Sur. r.

400-600

n. s. B. p.

800-1000

open hillside
29 exposed hillside

Bucaramanga

750

#1

Upper
valley of Rio Lebrija,
n.w. of Buc.

400-600

photo
phot. f.

open rocky bank

open ~~bank~~ hillside

#2

3

- 16276 *Cassia*
 16277 *Ambropogon*
 16278 *Aeschynomene*
 16279 grass,
 16280 *Eupatorium*
 16281 *Isoloma*
 16282 *Peperomia*
 16283 *Justicia*
 16284 *Polypodium*
 16285 *Epiphyllum*
 16286 *Machaderium*
 16287 *Jacquemontia*
 16288 *Wrightia*
 16289 *Palicourea*
 16290 *Mikania*
 16291 *Heliconia*
 16292 *Peperomia*
 16293 "
 16294 *Amorpha*
 16295 *Crotalaria*
 16296 *Acaciaella hillipii* B. & R.
 16297 *Piper*
 16298 *Artocarpus*
 16299 (rub.)
 16300 *Spongia*
 16301 *Platyneris*
 16302 *Tournefortia*
 16303 *Cardiospermum*
 16304 *Cida angustifolia*
 16305 *Malachra*
 16306 *Rapanea* "cucharo"
 16307 *Salicaria*
 16308 *Eclipta*
 16309 *Dianthus*
 16310 *Eupatorium*

T 10-15' pet. y.
 H. somewhat woody cor. y.
 H. 3' h. up to 6 ft.
 Coars. herb.
 H 1.5-2.5 ft. cor. W. lobes, & style
 H. rich pink
 cor. yellowish or red-splashed within
 succ. herb. Spikes white
 S 8-10 ft. calyx y, cor. r.
 H
 Succ. vine Epiphytic
 T 15-25'
 H vine Cor. bright blue
 Ep. shrub Spikes bright green
 T 20-30' Cor. wh.
 H vine Cor. & style wh.
 Succ. vine
 Succ. herb on dry tree bases
 S 10-15' " " " "
 H
 Stem single Pet. y.
 Erect 5-7 ft. Stems wh.
 S 6-8'
 H. terr.
 S 8-12' cor. w.
 V. herb. cor. w.
 V. herb. pet. y.
 S 10-15' V. herb.
 V. herb. br. li. g.
 H. pet. w.
 H. pet. y.
 S 8-15' small T. trunk 2-3" diam.
 H 2-2 1/2' I woody
 V. herb. cor. y.
 V. herb. cor. scar.
 S 7-10' cor. & sty. p. w.

Sec. 29 open hillside

valley of Riber
Rio Lebrija

open rocky bank

thicket
rocky bank

thicket

river bank

dry hillside

(used for roofs.)
[trunk]

thickets

16311	(comp.)	H. 3-4'	heads y.
16312	Paullinia	V. herb.	fr. r.
16313	Scutellaria	H.	cor. li. b.
16314	Sarache	S. in th. sub-	cor. y. w.
16315	Echinocereus	S. scan. 10' diam.	tactus, plants to 10" diam
16316	Ocimum	H.	
16317	(tilia)	S.	pet. w. star y.
16318	Machaerum	T. 20-30'	
16319	Strutanthus	on 16318	
16320	Piper	S. 2-4'	
16321	Piper	S. 2-3'	
16322	Eupatorium	S. 4-7'	cor. light violet
16323	Abrutian	H. ± woody	sty. pet. w.
16324	Echites	"japiro del monte" V. herb.	cor. g. y.
16325	Stigmaphyllon	"agalita de pepina" V. woody	
16326	Anisodochia	V. woody	fr. 6-angled
16327	Piper	"cordacilla" S. 5-7'	
16328	Adenaria	"picurita" L. 4-6'	pet. w.
16329	Clematis	"cabello de ahil" V. herb.	
16330	Bignonia	V. woody	cor. red p.
16331	Paclia	"barigon" T. 25-30'	sta. w.
16332	Solanum	T. 6-8'	flat. top. cor. p. b.
16333	Psittum	"arayan" T. 10-25'	spread crown. anth. y.
16334	Castilleja	H.	pet. w.
16335	Vismia	"sangrito" L. 12-30'	
16336	Cordia ferruginea	"mulato" S. 3-5'	cor. w.
16337	Deschynone	H. woody	cor. y.
16338	Verbena	H. to 5'	cor. w.
16339	Verbena	H.	cor. lav.
16340	Passiflora cuneata	V. herb.	
16341	Bletia	H.	ap. pur.
16342	Legumin	H.	pet. w. at center,
16343	Passiflora coreacea	V. herb.	
16344	Passiflora	V. herb.	
16345	Deschynone	H.	cor. y.

woods
open hillside
(fr. used as darts by children)

Вне.

Dec. 30. open hillsides
(sap. used as coloring matter)

1155-
1300

V-12

P. F. 1880

~~P. 6.~~

P. pu. at mar.

- 16346 *Cyolobus*
- 16347 *palu*
- 16348 *Tillandsia usneoides*
- 16349 *Rhipsalis*
- 16350 *Triplaris*
- 16351 *Begonia*
- 16352 *Peperomea*
- 16353 *Peperomea*
- 16354 *Peperomea*
- 16355 *Dicliptera*
- 16356 *Asplenium*
- 16357 *Lycopodium*
- 16358 *Piper*
- 16359 *Boerhaavia*
- 16360 *Adiantum*
- 16361 *Anacardium*
- 16362 *Martynia*
- 16363 *Eupatorium*
- 16364 *Hamelia*
- 16365 *(Commelin)*
- 16366 *Euphorbia*
- 16367 *Cracca*
- 16368 *Asplenium*
- 16369 *Polypodium*
- 16370 *Wiegandia*
- 16371 *Tubera citraria*
- 16372 *Tripteris*
- 16373 *Cyperus*
- 16374 *Paspalum*
- 16375 *Oxalis*
- 16376 *Munna*
- 16377 *Amyris*
- 16378 *Opuntia*
- 16379 *Sesuvium*
- 16380 *Echeveria*

V. herb. cor. y. g.
 T + 40 ft. infl. wh., ± 9 ft. long
 H. ep. drooping from branches
 succ. ep. bran. dependent
 T 12-20' sep. g. ant. g. w.
 H. succ. pet. p. to w.
 H. succ.
 H. succ.
 H. succ.
 H.
 F.
 F.
 S. 5-6'
 H.
 F.
 T 15-25'
 P 10-15' leaves 4-5'
 S. 6-10' cor. w. prox. dent. + sty. p.
 S. 4' stem erect. cor. deep r.
 H.
 H. sub-scan. pet. w.
 H. 3-4' pet. w.
 F.
 F.
 T 8-12' pet. p. p.
 H. woody at base pet. y.
 F.
 H.
 H.
 H. pet. y.
 H. 2-3' sta. br. p.
 S. 5-10'
 S. 6-12' pet. r. p., drying o.
 H. woody pet. w. sta. w. prob. p. dent.
 H. succ. sep. g. pet. cor. w. densely r. most. ant. + appearing r. r. slopes

Rec. 30. after hillsides Buc.
 31. in patio
 Jan. 2. ~~wooded slopes~~ valley of R. Jurata
 rocky slopes between Buc. + El
 Jaboncillo

dry rocky hillside
 stream bed

rocky slopes
 dry hillside.

1100
 1300
 1000
 800-
 1500

3

P. X-1

- 16381
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- 16499
- 16500

- 16381 *Apennia*
 16382 *Pellaea cordata*
 16383 (*Myrseniaceae*)
 16384 *Bignonia*
 16385 *Marsdenia*
 16386 *Notholaena bonariensis*
 16387 *Vernonia*
 16388 *Piper*
 16389 *Tournefortia*
 16390 *Cephalocereus*
 16391 *Tillandsia recurvata*
 16392 *Leucaena*
 16393 *Phyllodeudron*
 16394 *Tillandsia*
 16395 *Clusia*
 16396 *Phoradendron*
 16397 *Polypodium*
 16398 *Epiphyllum*
 16399 *Santana*
 16400 *Cassia pilicaulis*
 16401 *Pleurothallis*
 16402 *Anthurium*
 16403 *Pleurothallis*
 16404 *Polypodium*
 16405 *Tillandsia*
 16406 *Piper*
 16407 *Epilobium*
 16408 *orchid*
 16409 *Eupatorium*
 16410 *Bromelia*
 16411 *Ficus*
 16412 *Passiflora curvata*
 16413 *Savonia*
 16414 *Mimosa*
 16415 *Acalypha*

F
 F
 T 12-20' cor. w.
 V. woody cor. rich p. int
 V. herb. cor. g. y.
 F
 S 6-10' cor. + pappus w.
 S 6-8'
 V. woody cor. g. w.
 Cac. to 20' h.
 H. ep.
 T 20-30'
 E. H.
 E. H.
 T 30-40' pet. w.
 E. S. on 16395
 F on rocks
 Ep. succ. per. tube g. seg. w. in, g. out.
 S 3-8' sta. o. prox, p. n. dist. sty. deep. o.
 cor. w.
 S 6-9' pet. y.
 H. ep. sep. w. prox, y. g. long. dist.
 H. terr.
 H. terr.
 F.
 H. terr.
 S 4-5'
 H. terr. 3 sep. open light gr.
 H. up to 3 ft. pet. wh. o. 1 pet.
 H. ter. tube o. 2 sep. cr.-y.
 S 5-8'
 S 2-3' cor. o. styles pure wh.
 H. panicle 3' high, 1.5 ft. wide,
 T 15-20'
 H. vine See notes
 S 3-5' pet. y.
 H. 3-5' stem
 H. erect simple stem. rich pink
 T 20-30 ft. Infl. green

Jan. 2 dry hillside, Valley of Surata River 800-1500
 between Buc. o. Jabonillo

rocky slopes
 tube w. int.

dry hillside

rocky slopes
 dry hillside

wooded banks of stream

X-4

Jan. 3 dry hillside, valley of R. Sur. 1500-1800
 rocky slopes between Jabon. & Surata.

1 pet. lip, o. col. red-spotted

bracts
 per. rich pink; per. purple, stamens wh.

dry hillside

- 16451 Grass
 16452 Passiflora
 16453 Stigmaphyllon
 16454 Comp.
 16455 Cassia
 16456 Inga
 16457 Mimosa
 16458 Casearia
 16459 Cassia
 16460 Alternanthera
 16461 Echinocistius
 16462 Justicia
 16463 Mimosa
 16464 Abutilon
 16465 Piper
 16466 Solanum
 16467 Polygala
 16468 Eupatorium
 16469 Eupatorium
 16470 Preslia paniculata
 16471 Orchid
 16472 Jussiaea
 16473 Solanum
 16474 Inga
 16475 Cordia floribunda
 16476 Lasiacis
 16477 Passiflora capsularis
 16478 ~~Passiflora~~ Asclep.
 16479 Phaseolus
 16480 Mimosa
 16481 Peperomia galioides
 16482 Peperomia repleta
 16483 Inga
 16484 Pavonia
 16485 Oenothera

- H twining
 H slender
 H 2-4 ft.
 H erect 4-7'
 T 25-35'
 S erect, 8-10'
 T 15-25'
 T 12-20'
 H scandent
 H vine
 S 3-6'
 S 8-12'
 H coarse
 S 3-5'
 Woody vine
 H woody at base
 S 5-7' lvs.
 H shiny
 H 2-4' lvs.
 S 5-8 ft.
 H Epip.
 S branches scandent
 S among branches of trees, up to 20' - pet. y.
 S 3-8'
 S low up to 5'
 S 5-7'
 H vine
 H vine
 H vine
 S 6-10'
 H Epip.
 H Epip.
 T 25-35'
 S 2-4'
 H.
- used in making mats
 lvs only
 See notes
 Pet. y.
 Rays y.
 Pet. y.
 Stamens wh
 " pure wh.
 Pet. or y.
 " bright y
 Heads purple
 Cor. wh.
 Calyx rich pink, cor. light
 Pet. y, red-br. at base
 Cor. pink - purp, anthers wh.
 Pet. pink, brown streaked
 Cor. & styles wh.
 " " light green
 Heads white.
 lvs wholly light green.
 Cor. gr. - wh, anthers y
 Pet. wh.
 Cor. wh.
 Cor wh., gr. at anthers
 Stand. pi-br. without
 y-green
 Fil. pink, anthers wh.
 Stam. wh.
 Pet. y.
 pet. p. anthers y. lvs pale

Jan. 3 (native F. higher mts.) Bet. Jabonillo & Surata
 wooded rocky slopes

dry hillside

thickets

4 thickets along river - Surata'

wings pi. keel gr-wh.

Jan. 8 field

vic. of Surata'

1500-
1800

Pl. X-6

Pl. X-2

2

1740 m.

1600-
1800

- 16486 *Notholaena*
 16487 *Lemanea* *Eupatorium*
 16488 *Prockia*?
 16489 *Jussiaea*
 16490 *Aclepias*
 16491 *Justicia*
 16492 *Prockia*
 16493 *Cestrum*
 16494 *Eupatorium*
 16495 *Mitrania*
 16496 grass
 16497 *Piper*
 16498 *Acalypha*
 16499 *Tomelium*? *Polygalac*
 16500 *Polypodium*
 16501 moss
 16502 *Acleraria*
 16503 *Acalypha*
 16504 *Typha*
 16505 *Chenop*
 16506 *Buddleia*
 16507 *Asplenium*
 16508 *orchid*
 16509 *Blechnum*
 16510 *Pteris*
 16511 *Passiflora ligularis*
 16512 *Rivina*
 16513 *Centropogon*
 16514 *hepatic*
 16515 *hepatic*
 16516 *Rhododendron*
 16517 *Piper*
 16518 *Sida*
 16519 *Piper*
 16520 *Centropogon*

F. among rocks
V. herb. cor. q. w.
S. 10-12'
H. coarse with pet. y.
H. droop. bran. pet. r.
H. coarse with ant. o.
H. woody juice cor. br. r.
V. very fleshy
T. 10-15' cor. tube & seg. pale y. g.
H. coarse cor. tube g. lobes w.
V. herb.
H.
S. 6-10'
V. woody sta. r.
S. 10-15' fr. o.
F. on tree trunk
on rocks cal. g. spotted with
S. 10-15' pet. w.
S. 8-15'
H. 5-10' h.
V. herb. cal. pale g. y.
S. 10-12' pet. y. w., pale g. out
F. among rocks
H. " "
F. " "
F.
V. herb.
S. 10-15' cor. sty, styg, or, sta,
V. woody cor. p.
on soil along streams
" " "
F. S.
S. 12-15'
H. coarse pet. y. striped with
H. 3-5' ant. y.
S. 4-8'
V. herb. cor. w.

Jan. ⁴/₅ rocky hillside vic. of Surotg' 16-
wooded hillside 1800

field
wooded hillside

deep woods in stream bed,
wooded hillside

deep r. in. prox.

- 16521 *Polygala paniculata*
 16522 *Melastoma*
 16523 *Vernonia*
 16524 *Eupatorium*
 16525 *Bauhinia*
 16526 *Hibiscus*
 16527 *Passiflora cuneata*
 16528 *Bauhinia*
 16529 *Iponoea*
 16530 *Calisia*
 16531 *Solanum*
 16532 (camp.)
 16533 *Eupatorium*
 16534 (camp.)
 16535 *Manettia*
 16536 *Melastoma*
 16537 *Salusoga*
 16538 *Castilleja*
 16539 *Alausa*
 16540 *Oxalis* "accedera"
 16541 *Solanum*
 16542 *Cufca*
 16543 *Fusclia cordulata*
 16544 *Miconia*
 16545 *Centropogon rosea*
 16546 (ordid.)
 16547 *Stenophyllus*
 16548 *Carex*
 16549 *Centropogon alba*
 16550 *Eupatorium*
 16551 *Elaphoglossum*
 16552 *Smilax*
 16553 *Vernonia*
 16554 grass
 16555 *Elaphoglossum*

H. 3-5' cor. w. to pink
 H. 3-5' cor. deep. p.
 V. herb. cor. pale pink
 H. 4-6' cor. w.
 T. 10-15' pet. w.
 S. 8-15' cor. y, becoming r. with age.
 V. herb. pet. w.
 S. 8-10' cor. p.
 V. herb. rays p. cor. q. y.
 T. 10-15' sty. y.
 S. 4-6' cor. w.
 S. 5-8' ant. y. cor. y. sta. br.
 S. 6-8' cor. w. lobes + sty.
 S. stem 2 diam. at base. li. p.
 H. 4-6' rays w. p.
 H. woody at base cor. q.
 V. herb. cor. q. w.
 H. 2-4' cor. pet. deep. p.
 H. slender rays w. cor. q. y.
 H. br. q. deep r. at apex
 H. cor. o. p. fil. q. ant. y.
 H. succ. pet. y.
 V. herb. cor. w. sty. y.
 H. sub-pro. pet. li. p. q. y. at base
 V. woody cal. r. pet. pink
 S. or small T. sty. + sty. + fil. r. ant. deep. r.
 S. 10-15' cal. q. w. fil. + pet. w.
 V. with cor. tube p. ant. p. w. w.
 V. woody base. lobes p. "gyn." w.
 H. terr. fr. q.
 H.
 H. woody cor. pure w.
 S. or low T. cor. sty. red. pink
 F. 8-15'
 V. woody per. q.
 S. 8-10' bran. along sub-scan. pap. w.
 H. cor. w. lobes p.
 F.

Jan. 4. open slopes vic of Surata 16-1800

wooded slopes
open slopes

Jan. 5 thicket

exposed hillside, valley of R. Sur.
above Surata

2000-2300

rocky wooded slope

dry hillside

edge of woods
dry rocky hillside
edge of woods

dense forest

- 16556 *Asplenium salicifolium* F.
 16557 *Rhopteris attenuata* F.
 16558 *Peperomea* H. succ.
 16559 *Piper* S. 6-8'
 16560 *Pilea serrata* H. succ. stem rooting at base
 16561 *Pilea elongata* H. succ. becoming scan. to 15' long.
 16562 (orchid.) E. H. fr. q.
 16563 *Asplenium dissectum* F.
 16564 *Peperomea* H. on trees
 16565 *Antthurium hastatum* H. ~~on trees~~ terr.
 16566 moss on decaying wood
 16567 *Sellaginella* F. terr.
 16568 *Peperomea* H. terr.
 16569 *Polypodium* F. terr.
 16570 *Coccolopalmum* H. lax. cor. w, fr. br. b.
 16571 *Hydrocotyle* H. slender, fr. li. q.
 16572 *Peperomea* H. repent.
 16573 *Antthurium coripatense* N.E.B. H. on trees
 16574 *Lantana* H. at base of trees
 16575 *Piper* S. slender, fr. black
 16576 *as hepatic* S. 3-4'
 16577 moss on soil
 16578 *hepatic* on soil
 16579 *Samicula* on wood
 16580 *Peperomea* H. fr. q.
 16581 *Cardamine* H. succ.
 16582 *Polypodium decurrens* H. terr.
 16583 *Psychotria* H. sub-succ. pet. w.
 16584 *Pilea alsinoides* F.
 16585 *Polygala* T. 15-20'
 16586 *Piper* H. succ. repent at base
 16587 *Syngramma* H. erect slender pet. rich pur. keel p. w.
 16588 *Phyllodendron* T. 3-4'
 16589 (rub.) T. 8-12'
 16590 *Coccolopalmum glabrum* F. fr. 5' incl. stipe (1 1/2')
 H. caudex 6" 1/4"
 H. ~~epathic~~ fr. at base, cream dist.
 S. 10-12' cor. w. fr. br. b.
 H. rather cor. w. fr. dark blue
 H. succ. 2-4'

Jan. 5 dense forest valley of R. Surata

2000-
2300

det. T. Croat 1990

3

3

4

4

- 16591 Meibomia
- 16592 Piper
- 16593 Eupatorium
- 16594 Ochlopteris
- 16595 Calceolaria
- 16596 Saurauya
- 16597 ~~(mat)~~ Siperuna
- 16598 Bacchistius
- 16599 Baccharis
- 16600 (leg.)
- 16601 Xanthoxylum
- 16602 Phragonia
- 16603 Spliacele
- 16604 Trusclia
- 16605 Crotolaria
- 16606 Cissampelos
- 16607 Passiflora mollis
- 16608 Bacchistius
- 16609 Venonia
- 16610 Centropogon
- 16611 ~~(mat)~~ Siperuna
- 16612 Rubus
- 16613 Erythrodies
- 16614 Solanum
- 16615 Peperomea
- 16616 Peperomea
- 16617 Psychotria
- 16618 Rubus
- 16619 Salvia "maritima"
- 16620 Protea (Exp?)
- 16621 Zilibodia
- 16622 Erythrina
- 16623 Cordia caracasana
- 16624 Erigeron
- 16625 Mounina

S 8-10' with elong. slender bran. stem + waxy
 T 20-25' pu. p. pale
 H. woody at base cor. w. sty. w.
 F. 3-3 1/2' slope 1 1/2'
 H. in marshy soil cor. y.
 T 40-50' pet. w.
 S 3-4' fr. r. Y pet. q. w.
 T 12-15' with elong. bran. suff. w.
 S 8-12' pet. w. stan. strok
 T with elong. subac. bran. pet. q. w. with n. pu. att center.
 T 20-30'
 T 20-30'
 S with erect stems cor. w.
 S 4-6' V woody cal. + cor. br. r.
 H 3-4' H. woody at base pet. y. stan, faintly lined prox.
 V herb. fr. q.
 V herb.
 S 10-12' with elong. bran. cor. w, sty. p.
 S 8-10' bran. elong. lobesp. + lobes
 V woody cor. rich p. w. in.
 S 8-12' cor. y. q. fr. r.
 V woody pet. w.
 H. tem. per. w. throughout
 S 4-8' cal. lobesp. out, w. in.
 H on trees cor. p. pu.
 H. " "
 S 5-6' pet. w.
 V woody pet. w.
 H. used to visit in animals cor. deep b.
 S cor. w.
 S cor. r. prox, p. dist.
 T 15-20' Calyx. Pet. red, ket. p. dist.
 S 5-7' calyx y-gr. an. y-gr.
 H Rays wh., often purple-tinged
 S slender Pet. deep blue
 S 7-8'

Jan 5 dense forest, valley of Surata
 keel whitish

edge of woods

faintly lined prox.

Jan. 6 dry hillside, vicinity of Surata
 Valley of Surata, above Surata
 rocky bank
 dry hillside

2000-2300

3

2

1600-1800

2000-2400 X-2,3

- 16696 Baccharis
 16697 Cassia
 16698 Senecio
 16699 Achyrocline
 16700 Mplowlepis
 16701 Melastoma
 16702 Begonia pileifolia
 16703 Cystopteris
 16704 Hibiscus
 16705 Eupatorium
 16706 Eugenia
 16707 Mimulus
 16708 Eleocharis
 16709 Juncus
 16710 Hydrocotyle
 16711 Lichen
 16712 Muehlenb. "perijil"
 16713 Satureja "mejorana"
 16714 Rosmarinus "romero"
 16715 Geranium "geranio"
 16716 Geranium "aroma"
 16717 Eupatorium "almoraduz"
 16718 Viola "violetta"
 16719 Dioscorea
 16720 Piper
 16721 Rubus glaucus
 16722 Piper
 16723 Eupatorium
 16724 Jugia
 16725 Piper
 16726 Piper
 16727 Mikania
 16728 Rubus macrocarpus
 16729 Miconia
 16730 Priscotia

- S 8-15' sticky
 S 10-12'; stems compact
 S 3-5 ft.
 H 2-4'; woody cut base
 H
 S 10-15'
 S with spreading branches; 6-9' high
 H
 S 7-9'
 S 7-12'
 T 15-25'
 H weak
 H
 H 3-4'
 H repent
 H used in soup
 H woody, used for kindling, Cor. wh.
 S 4-6'; used rheumatism
 H
 H
 S 6-8' to cure sick animals
 H
 V woody, climbing to 20-30'
 S or low tree 10-12'
 V woody; stem 8 inches lf very
 S 5-15'
 S with elongate branches, perhaps
 V woody
 V or almost an herb
 S 1-2 ft. long
 S " "
 V woody
 V woody
 S 8-12'
 H ter.
- Heads wh.;
 Pet. y.
 Cor. & styles light y
 Heads y-g.
 Pet. pink, anthers y.
 Pet. wh.; st. & anthers y.
 Pet. pinkish red
 Cor. gr-wh, lobes & styles pinkish
 Pet. & stem. wh.
 Cor. y.
 Pet. pink, purple streaked at base
 Pet. wh.
 Cor. & styles, wh.
 Pet. deep violet
 glaucous Pet. wh.
 spikes wh.
 Cor. gr-wh, lobes purple, styles pink
 Cor. wh, stem. green
 Cor. & styles, gr. wh., anthers gr.
 Fr. black
 Pet. pi.-wh., fil. bright y
 Sep. wh. with red

Jan. 6 clearing
 Valley of Surata River, above Surata
 clearing
 edge of forest

among rocks, edge of forest
 edge of forest

marsh

mossy banks
 rocky banks

7 Vicinity of Surata

Coll. by Eloy Amaya
 growing on limestone

6 edge of forest

dense forest

mossy banks

2000
 -2400 m.

4

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3

16731	Equisetum	H	
16732	Elaphoglossum	H	
16733	Elaphoglossum	H	
16734	Histiopleris	H	
16735	Hypoleucophyllum
Hypoleucophyllum	H ter.	Stipe 3', fr. 3'
16736	Grass	H	
16737	Orchid	H ter.	
16738	Oenothera	H	
16739	Palicourea	S 8-10'	Pet. red to cor.-red
Cor. gr.-wh., lobes green
Cor. rich pink
16740	Justicia	H	
16741	Piper	S with prostrate
branches, 2-3' long	
16742	Centropogon	V woody	Cor. rich pink, pale within
16743	Viburnum	T 8-15'	Cor. wh.
16744	Quercus	T 40-50'	Sep. green
16745	Weinmannia	T 15-25' (8)	Pet. & fil. wh., anther light
16746	lichen	Ter.	
16747	moss.	"	
16748	Polytrichum	"	
16749	moss	"	
16750	Guirapera	T 30-40'	Fl. blue
16751	Pleurothallis	H Epip.	Fls. pure white throat
16752	Epidendrum	H Epip.	5 sep + lips wh., deep purpl.
16753	Anthurium	H acaulescent on
tree trunks	Spadix green
16754	Gomphrena	H prostrate	1 heads gr.-wh.
16755	Louicea	H vine	Cor. wh., turning y when
wilted
16756	Verbena	H 1-2.5'	Cor. pinkish-bl.
16757	Sterculia "malva"	H 1-4' coarse	Pet. rich pi., darker prox.
16758	Boussingaultia	H vine	Per. wh., becoming with fr.
16759	Duranta	S with elongate
drooping br.	Cor. gr. prox, pale pi. dist. ^{of lobes sep.} perhaps
16760	Schomburgkia	H ter 4-8'	5 sep. deep pi., lip light pi.
16761	Regonia	S 4-6'	Sep. light pi., fil. & anther y
16762	Arypaubenium	H	Rays wh., cor. gr.-y
16763	Castilleja	H woody at base
1-2'	Sep. (or br.) bright r., hairy part
16764	Thibaudia	S 6-15'	Br. & calyx to red-pi., cor.
16765	Goulettheria	S 2-4'	Fl. dull red

2000 - 2400 m.	
1740 m.	
1700 m.	
1740 - 2000 m.	
2000 ± 600	±

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- 16766 *Vaccinium* S 4-6'
 16767 *Vaccinium* S 1-3'
 16768 *Proteaceae* S 8-12'
 16769 *Melastomaceae* H woody
 16770 *Peperomia glauca* S ± 10 ft.
 16771 *Escallonia floribunda* T small, 10-15'
 16772 *Salvia* H coarse, 4-6'
 16773 *Cestrum* T 15-25'
 16774 *Stipa* H
 16775 *Piper* S 4-6'
 16776 *Fraxinea* S 10-12'
 16777 *Thibaudia* S 5-10'
 16778 *Rubus* V woody
 16779 *Centropogon* V woody
 16780 *Piper* S 6-8'
 16781 *Epidendrum album* H ter
 16782 *Acalypha* S 10-12'
 16783 *Epidendrum roseum* H ter
 16784 *Coriaria* T 8-12'
 16785 *Epidendrum* H ter
 16786 *Polygala* H prostrate, 2-3'
 16787 *Passiflora maximiliana* H twining vine
 16788 *Mimulus* H
 16789 *Croton* S 3-5'
 16790 *Phyllis* H coarse 3-5'
 16791 *Mentha* V herbaceous
 16792 *Phaseolus* V herb.
 16793 *Piper* S 6 ft.
 16794 *Lasiacis* V much branched
 16795 *Alluvia violacea* H coarse to 4'
 16796 *Mouroua* H up to 3'
 16797 *Justicia* H 3-10' pubescent
 16798 *Acalypha* T 15-25' pet. & sep. y.
 16799 *Grass?* H 5' higher more lvs
 16800 *Orchid* H epip

"milio"

Calyx gr., cor. light pi. lvs. dark
 " light gr. cor. wh. ^{becoming} pi.
 Calyx & anth. gr.
 Pet. gr.-y. st. & anth. rich y.
 Cor. rich pi., st. wh., anth. gr.
 Pet. & fil. wh., anth. olive-gr.
 Calyx & cor. red
 Cor. tube wh., lobes wh. margin

Young spikes gr.-wh.
 Calyx & pet. bright red, pet.
 Cal. dark gr., lobes lighter
 Pet. light pi. Sep. wh.-
 Tube rich pi., nearly wh. ^{with}
 Spikes nearly wh.

5 seps. light pi. out, wh. in,
 Styles deep pinkish-red
 5 seps. rich pi., lip. light pi., col.
 Anth. y.-g. Sep. deep purp.
 5 seps. pi. out, wh.-y. in.
 Pet. deep purp., fr. gr.

See notes
 Cor. bright y.
 Sep. light gr., pet. fil., & anth. wh.
 Cor. out purp. base, wh. mid. lvs.
 Cor. light pi.
 See notes
 Pet. light or, becoming brown

sep. red-purp., pet. rich pi.
 Pet. deep purple
 Cor. deep, pi. red., Cor. lighter
 S. y.-gr.; style pi. red.
 fr. green; unls as popcorn
 but smaller
 See notes

Jan. 8 open hillside Between California & La Baja

thickets Vic. Surata

slightly lighter, open hillside, bet. California & La Baja
 Cor. tube deep red, spurs, dist. & lobes green, fil. wh. ^{with brown} pale dist.

Tube brown, col. br.-purple, lip. wh., crown y. / rocky hillside
 open hillside
 5 seps. purple. purp., gr.-y. dist., crown y. / rocky hillside
 open hillside
 col. purple. br., lips y.

thickets
 marshy place, bet. Surata & California
 open hillside

in purp. striped base, wh. mid., lobes purp.
 thickets

Surata, sparingly cult.; from "Tierra Caliente"
 10 woods along stream, Surata

2000-
2600m.

1700
-1800m.

2000-
? m.

1740-
2000m.

1700m.

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16801	<i>Chenopodium</i>	"saico"	H 2-3'	Plant y-g.
16802	<i>Plantago</i>	"elantais"
"plantains"	H medicinal
for inflammation	
16803	<i>Tapeinidium</i>		H epip.	
16804	<i>Diplazum</i>		H epip.	
16805	<i>Begonia</i>		H epip. suc.	Sty. pet. wh. & Pet. light pi.
16806	<i>Thalassantia</i>		H ter.	Per. light pi.
16807	<i>Oreocanthus</i>		S epip.	spikes gr.
16808	<i>Doryopteris</i>		H ter. & epip.	
16809	<i>Asplenium</i>		H	
16810	Moss		On partly submerged rocks	
16811	Rub?		V herb	Tube gr., lobes wh. hairs wh.
16812	<i>Eugenia jambos</i>		T 20-30'	Pet. ostam. gr. - wh.
16813	<i>Zanthoxylum</i>		S or sm. T. 10-12'	Pet. wh. marg. gr. center
16814	<i>Solanum?</i>		V herb.	Fl. buds gr.
16815	<i>Peperomia</i> "anthurionides"		H succ. on tree	Spikes green
16816	<i>Dicliptera</i>		H subscandent	Calyx gr. purp. fruit oblate
16817	<i>Polypodium</i>		H ter. moist banks	
16818	Moss		On tree	
16819	Moss		On moist soil	
16820	<i>Sambucus</i>	"saico"	T 8-10'	used for catarrho grippe
16821	<i>Scroph.?</i>		V herb.	Cor. tube wh. procs along lower
16822	<i>Caesalpinia</i>		S or small tree, in
dense clumps, stem slender.	
16823	<i>Porizolzia</i>		H woody below	
16824	<i>Eupatorium</i>		S 9-12'	Cor. gr. - wh., styles light gr. pi. - tinged
16825	<i>Cestrum</i>		S 8-12'	Cor. gr. - y.
16826	<i>Adeuaria</i>		S 4-8'	Pet. wh.
16827	<i>Phaseolus</i>		V herb	See notes
16828	<i>Cassia</i>		T 12-20'	Pet. bright y
16829	<i>Cordia floribunda</i>		S 5-8'	Ar. gr. - wh.
16830	<i>Bidens</i>		H	Ray wh., cor. gr. - y.
16831	<i>Hiraea</i>		V herb.	Pet. y
16832	<i>Mimosa</i>		S or sm. T 10-15'	Stam. gr. - wh. ? (unfilled)
16833	<i>Salix</i> (not <i>S. humboldtiana</i>)		T 50-60' Jr.	Reverts gr.
16834	<i>Passiflora suberosa</i>		V herb.	Tube purple out base; grass gr. safs cor.
16835	Grass		S 8-12', buds	
			H dwarfing over road.	

Game. 10

Surata

woods along stream

with y-g thickets along stream
Calyx tube pi. wvls along stream
fls. oanth. gr.

100. pinkish-red

open hillside
side, otherwise ^{closer, perhaps} open hillside, perhaps escape
bet. Sonora & California

1800m.
1740
- 2000m

perhaps introduced

- 16836 Rust on 16835
 16837 Parosela
 16838 Ipomoea
 16839 Cissampelos
 16840 Eugenia
 16841 Euphorbia
 16842 Datura
 16843 Croton
 16844 Cestrum
 16845 Stipa
 16846 Agrostis
 16847 Sympterna
 16848 Andropogon
 16849 Comp.
 16850 Dryopteris
 16851 Cheilanthes
 16852 Mimosa
 16853 Oxalis
 16854 Phaseolus
 16855 Albionia
 16856 Borreria
 16857 Notholaena
 16858 Polyala pauciculata
 16859 Caneus
 16860 Cerbera
 16861 Asplenium
 16862 Polyala
 16863 Cyperus
 16864 Chaetochloa
 16865 Ganthophyllum
 16866 Comp.?
 16867 Anagallis
 16868 Neibomia
 16869 Sterculia
 16870 Sonchus

H 2.5-4', woody below
 V herb twining
 V herb twining
 T small 10-15'
 H
 H 3-6'
 S low, up to 6'
 S
 H slender
 H
 H
 H semiprostate
 H
 S 5-10'
 H basal lvs subopposite
 V herb on ground
 S 2-3'
 H
 H
 H slender
 H
 H
 H
 H
 H
 T 8-12'
 S 2-5', very glutinous
 H weak, prostrate
 H 3-5', lax
 H coarse
 H coarse 2-4'

Pet. all wh. prox. purp. dist.
 Cor. pi.-purp, lobes paler
 Fls. green
 Pet. wh., fil. pi. prox.
 Infl. wh.
 Cor. pinkish-blue
 Pet. gr.-wh, fil. wh, anther gr.
 Cor. gr.-wh.
 Throat reddish
 Infl. reddish
 Infl. wh.
 Heads gr. wh.
 Bracts bright green
 Fls. - deep to light pi., anthers
 Cor. Pet. y.
 Pet. deep blue, dist., wh. prox.
 Fls. bluish-purp. anther y-g
 Cor wh. to light pi.
 Sep. gr., wh. marg. Pet. wh, pi. tip dist.
 Fr. gr., bristles purplish
 Pet. rich pi.
 Sep. gr. to deep purp.
 Pet. purplish-pi.
 Pet. gr.-y.
 Cor. wh. to pi.
 Pet. bright blue, darker at base
 Pet. pi.-purp., paler prox.
 Pet. purpl.-pi.
 Rmp. florets y

Jan. 11 open hillside, Bet. Durata & California

gr. wh. dist; anther, light brown

California

12 rocky hillside

8 thicket Bet. Durata & California

12 open hillside, above California

1700-2000m
 2000m
 +2000m
 1700-2000m
 2000-2400m

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16871	Alousoa	H 1-2.5'	Cor. or-red
16872	Polygonum	H prostrate branches	Sep. gr. prox, wh. dist.
16873	Oenothera	H	Pet. y., or tinged at apex
16874	Salvia	H $\pm 2'$	Cor. bright bl., anths. light gr.
16875	Miconia	S 2-4'	Calyx light gr., pet. & fil. wh., anths. light gr.
16876	Aristida	H	Infl. pi.-red
16877	Euphorbia salicifolia	S 3-4'	Sep & pet. pi.-red, pale margin
16878	Pityrogramma tartarea	H	
16879	Solanum sinuatum	H 1.5-2'	Cor. & pi.-wh., striped darker
16880	Asplenium	H	Bracts lustrous above.
16881	Eriochlaena	H	
16882	Asplenium	H	
16883	Eupatorium	H 1.5-2.5' high, + woody below.	Cor. gr., lobes & style bright pi.
16884	Miconia	T 10-12'	Pet., fil. & styl. wh. anths. gr.; fr. purple
16885	Lippia	T 6-12'	Cor. wh., tube gr. with thin
16886	Cassia	T 8-15'	Pet. bright y
16887	Banisteria	S 6-10'	Pet. y
16888	Mimosa	S with elongate branches	Fil. light pi., anths. wh.
16889	Passiflora bracteosa	V woody	See note
16890	Hibiscus	S up to 12', branches drooping	Pet. red; anths. gr.
16891	Solanum tenuipes	V woody	Cor. wh., fil. gr., purp. streaked
16892	Palicourea	S 2-4'	Cor. gr.-wh.
16893	Passiflora	V	Stems
16894	Centropogon	V woody	Cor. red without, light pi. in
16895	Dichromena	H	Br. wh. prox, gr. dist.
16896	Bidens "cayana"	H coarse, branches prostrate	Adhere purple
16897	Liabum	S 6-10'	Reps bright y; fls. darker
16898	Solanum velutinum	S	Cor. wh. - tinged out
16899	Sphaele	S 6-10'	Cor. wh. - tinged out
16900	Solanum hirsutum	H prostr. branches	Cor. wh.
16901	Miconia	S 4-6'	Cor. wh., midrib purp.
16902	Polypodium phymula	H	Calyx light gr.; pet. w.
16903	Polypodium "canaguana"	H erect	
16904	Hypocistis	S 2-8'	Pet. y. anths. 5 or more
16905	Eupatorium	S 4-6'	Cor., styles, stem. purp. wh.

Jan. 12 open hillside, above California
wooded stream
open hillside

2400-
2800m.

1
2

Pl

pi. anths. bright y

pi.
anths. gr.; fr. purple

edge of woods

2800-
3000m.

anths. gr. - y
open woods
edge of woods

2
1
1

thickets

both sides, anths. y
anths. gr. - pi.; open woods

edge of woods

16906 *Sanicula*
 16907 *Vaccinium*
 16908 *Meriania*
 16909 *Psychotria*
 16910 *Arctostaphylos*
 16911 *Cyathea*
 16912 *Passiflora*
 16913 *Oralis* "accedera"
 16914 *Elaphoglossum*
 16915 *Crassula*
 16916 *Viburnum tomentosum*
 16917 *Polytrichum*
 16918 Lichen
 16919 Hep.
 16920 Moss
 16921 Lichen
 16922 Lichen
 16923 Lichen
 16924 Moss
 16925 Moss
 16926 Hep.??
 16927 Moss
 16928 *Centropogon*
 16929 *Eupatorium*
 16930 *Psychotria*
 16931 *Viburnum*
 16932 *Hydrocotyle*
 16933 *Saurauja*
 16934 *Solanum* "arbol de cocua"
 16935 *Pomarea*
 16936 *Paspalum*
 16937 *Asplenium*
 16938 *Polypodium*
 16939 *Vitis*
 16940 *Agrostis*

S 6-8'
 S 4-6'
 S 4-10'
 S 6-8'
 S low, semiprostrate
 Candel 2' high, 8" diam
 H
 H succ.
 H ter.
 T 10-15'
 T 10-15'
 On banks
 Dry branches
 Swamp tree trunks
 On trees
 On rocks
 On banks
 On banks
 On dry banks
 On rocky banks
 V woody
 S 4-8'
 S 2-4'
 T slender, 10-12'
 H rep.
 T 12-15'
 S 10-12'
 V woody
 H
 H epib?
 V herb.
 Slender grass

Heads y
 Buds wh., Cor. pi.
 Pet. mag. pi., fil. reddish
 Ripe fr. black
 Cor. wh.
 semierect
 Per. deep violet, fil. oanth y
 Pet. y.
 Fil. white gr. wh.
 Buds green, fls. wh.
 Cor. red, opt, pale pi. in
 Cor. gr. w., lobes, ovary rich pi
 Infl. deep greenish - y
 Fr. gr., not ripe?
 Infl. gr.
 Pet. wh., anther y
 Cor wh. green underneath, anther y
 See notes
 Fr. y-gr., stiff, pubescent
 Pet. y-gr.

Jan. 12 edge of woods, above California
 auth y. ~~open woods~~
 edge of woods
 edge of woods
 open woods
 edge of woods
 open woods (cult.?)
 open woods

open hillside

2800
-3000m.

3

2400-
2800m.

3000m.

5

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- 16941 Comp.
 16942 Lycopodium
 16943 Davilla
 16944 Elaphoglossum
 16945 Centropogon
 16946 Castilleja
 16947 Solanum
 16948 Solanum
 16949 Solanum "turno"
 16950 Moss
 16951 Parietaria
 16952 Cestrum "minigua"
 16953 Piper
 16954 Eriochloa
 16955 Verbenaceae
 16956 ~~Euphorbia~~
 16957 Solanum
 16958 Scroph.
 16959 ? "tamapaco"
 16960 Rubus
 16961 Eupatorium
 16962 Rust on 16961
 16963 Rubus glaucus
 16964 Polystichum
 16965 Asplenium
 16966 Stipa
 16967 Balceolaria
 16968 Carex
 16969 Paspalum
 16970 Solanum
 16971 Salvia
 16972 Comp.
 16973 Salvia
 16974 Iresine
 16975 Peperomia

S 10-12'
 H repent
 T 8-12'
 H ter.
 S low, branches
 S scandent
 H 1.5-2'
 S 2-4'
 H 3-4'
 S 4-6'
 dry banks
 H
 S 10-15'
 S 12-20'
 H
 T 15-20'
 H matted
 H 1-1.5', woody at
 H base
 H 6-15 inches
 T 12-15'
 S 2-4'
 S 2-4'
 S 5-8'
 H
 N
 H
 H + succulent
 N
 H
 H woody H 2-3'
 V woody
 H
 S 8-12' ± viscous
 V herb
 H suc. epiphyt. repent

Pappus gr. wh.
 Spikes wh.
 Fr. reddish-br.
 Cor. red out, pi. wh in.
 Br. gr. proc, y, dist.
 Cor. gr. wh., anther y
 Cor. pale pi., purple out
 Cor. light blue,
 Per. o br. gr.
 Cor. or.
 Spikes green
 Cor. gr. - wh.
 Fr. gr.
 Cor. wh. many, purp. cent.
 Cor. wh., ~~br.~~ y-g at
 Pet. pi. - wh., anther reddish
 Pet. light pi.
 Cor. o style, pure wh.
 Pet. light pi. to wh.
 Cor. y.
 Cor. wh., midrib pi., anther y
 See notes
 Rays pi. wh., cor. gr.
 See notes
 Infl. gr. - wh.

Jan. 12 open hillside above California

3000 m.

lobes red
 Cor. bright red.

at middle
 anther y.

edge of woods
 open woods

edge of woods

anther y open woods
 throat within, edge of woods

edge of stream

dry bank

open woods
 open woods
 edge of woods

3000 -
 2500 m.

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- 16976 *Marchantia* On wet rocks
 16977 *Marchantia* " " "
 16978 *Hep.* " " "
 16979 *Lichen* Pl. bright orange
 16980 *Lichen*
 16981 *Sclerophylloides* ? "flor de lata" H ter. 8-20'
 16982 *Lippia* T 10-15'
 16983 *Solanum* S 4-5'
 16984 *Anthurium* H ter
 16985 *Polypodium* H ter
 16986 *Polystichum* H ter
 16987 *Miconia* S 4-6'
 16988 *grass* H
 16989 *Pilea alacrioides* H weak, rooting below
 16990 *Pilea dancuvdora* H stem red, succ.
 16991 *Polypodium* H ter.
 16992 *Anthurium* H ter?
 16993 *Centropogon* V woody below
 16994 *Blechnum* H
 16995 *Centropogon* V woody
 16996 *Cyathea* *Polystichum pauciflorum* (Hb) tree fern Caudex decumbent
 16997 *Marchantia* Wet rocks
 16998 *Alternanthera* H ~~subcrenate~~ br. up to 6' long
 16999 *Lichen*
 17000 *Dichsonia* Caudex decumbent or subterranean, stipe 1-1.5'; frond 4-6'
 17001 *Peperomia* H epip.
 17002 *Phoradendron* S epip.
 17003 *Cestrum* S 6-8'
 17004 *Richardia* V herb
 17005 *Coreopsis* S low
 17006 *Borreria* H br. prostrate
 17007 *Browallia* H
 17008 *Mourina* H 3-5'
 17009 *Adiantum* H ter.
 17010 *Asplenium* H

See notes

Cor. wh.

Cor. wh. anther y

Spadix dark gr., spathe light gr.

Pet. light pi., fil. reddish pi., anther y, red dorsally

achenes light gr.

Pet. red. purplish, spathe gr. margin, br. center out, pi. in., young spathe deep purp
 Cor. rich pi. out, pi. in

Cor. light red, pale purp, lobes darker (out); pi. in.
 8-10'; fr. 6-8'; stipe $\pm$ 1'

Heads rich purple

Spikes yellowish

Cor. gr.-y.

Gr. purp ~~at base~~ light gr.

Keyp bright y; cor. gr., lobes or

Cor. wh., lobes faintly tinged

Tube pi out, lobes bright bl.

Pet. rich blue

Jan. 12 woods

above California

rocky banks

woods

open hillsides

13 woods

California

near California

3000-2500 m.

2500-2300 m.

2000 m.
1900-2000 m.

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- 17011 Solanum
 17012 Selaginella
 17013 Lasiacis
 17014 Pilea sp. nov.
 17015 Begonia
 17016 Peperomia
 17017 Phlox lutea
 17018 Paspalum
 17019 Asplenium
 17020 Aster
 17021 Aster
 17022 Grass
 17023 Polygonum
 17024 Pilea (?) on 17023
 17025 Pilea
 17026 Polypodium ?
 17027 Nasturtium "berro"
 17028 Pityrogramma tartarea
 17029 Tournefortia
 17030 Craterium "mosquero"
 17031 Justicia
 17032 Piptopteris
 17033 Myrica
 17034 Melast.
 17035 Eleocharis
 17036 Marchantia
 17037 Moss
 17038 Asplenium
 17039 Mimulus
 17040 Palm
 17041 Commelinaceae
 17042 Justicia
 17043 Polystichum
 17044 Acalypha
 17045 Epiphyllum

V herb.

H

V herb.

H succ.

H

H Epip.

+ woody br. 4-6'

H prostrate on ground

H

H

H

H

H long. branches

H repeat below

H succ. weak

T 15-25'

H repeat

H

S 8-12'

S 2-5'

H 2-3'

H

S 8-15'

H

H repeat at base

on wet rocks

on wet logs

H

H 3-4'

Fr. 1/2 in. "P. 6-10"

H fr. semiprot.

H 2-2.5'

H

S 6-10'

H 6-8'

Cor. wh., anth. y.

Rays white; cor. deep y.

Sep. wh.

Bract (only) greenish-wh.
 Pet. light pinkish-wh.

Cor. gr. wh. with stiff wh. hairs; fr. pure wh.
 Pet. light gr., stam. wh.
 Cor. deep red dist., pi. at base

Fr. gr.
 Pet. wh.

Fl. wh.; cor. gr. wh., pale dist.

Fr. or y. with black skin
 Fr. bl.
 Cor. dark red

Humid trop. species gr. wh.
 See notes

Jan. 13

Woods

near California

edge of stream

Woods

1900
 -2000m.

2600
 -2350m.

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17046 Passiflora platycaula

17047 Ipomoea

17048 Habenaria

17049 Piper

17050 Rust

17051 Antropogon

17052 Eupatorium

17053 Preslia paniculata

17054 Echites

17055 Viburnum

17056 Clethra? (Elaeagnus?)

17057 Piper

17058 Habenaria

17059 Viburnum

17060 Castilleja Comp.

17061 Nerborinia

17062 Stenorrhynchos

17063 Anethum

17064 Anethum

17065 Anethum

17066 Commelinac.

17067 Anethum

17068 Tradescantia

17069 Hibiscus

17070 Moss

17071 Moss

17072 Marchantia

17073 Drymaria

17074 Rub.

17075 Asplenium

17076 Orchid

17077 Orchid

17078 Peperomia

17079 Columnea

17080 ?

V herb. twining

V herb

H

S or low 8-12'

V ± woody

H 4-6' (?)

T 12-20'

V woody

S 8-12'

T 12-20' slender

S 3-4'

H

T 10-12'

~~H~~ S 8-12' slender

V herb

H succ.

H ter

H ter

H ter a pip

H succ. 3-4'

H ter?

H succ. 1-2'

on dec. logs

" " "

" " "

" wet rocks

H weak, compact.

S 8-12'

H

H epip.

H ter

H epip.

H ter Stem ± succ.

S

Fls. as before

Cor. wh. ^{tube} perox, pi. dist.

3 nts sep. gr. 2 in +

head wh.

Spikes, wh.

Cor. red pi. out; narrow, wh.

br. gr. ~~dist~~ pur. wh. dist.

Cor. pi. tinged; styles gr.

Heads gray-

Cor. y

Cor. wh.

Cor. (dist) wh.

Seps gr., wh. ^{tinged} marg.

Rays wh., heads deep gr.

~~Pet. pale red, dist.~~

~~Pet. pale red, dist.~~

3 sep. pi. red out,

See notes

Spad. purp., spathe gr.

See notes

Spathe golden-br. out,

br. gr.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Pet. reddish pi.

Jan. 13 Woods

looks purple

looks purple

looks purple

looks purple

looks purple

looks purple

looks purple

looks purple

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looks purple

near California

2000
-2550 m.

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some dist.

at upper margin

lip to

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

pale in; lip wh.

Woods

2400
-2000 m.

around with red hairs

2

- 17081 Anthurium
 17082 Malaxis
 17083 Viburnum
 17084 Polystichum
 17085 Durante
 17086 Clavija
 17087 Myrsineae?
 17088 Asplenium
 17089 Tapeinidium
 17090 Pilea parietaria
 17091 Centropogon
 17092 Rub.
 17093 Tropaeolum
 17094 Rhyssolopora
 17095 Heliconia Canina
 17096 Gloriosa "lactinpa"
 17097 Solanum "cocua"
 17098 Gesner.
 17099 Justicia Spigelia
 17100 Peperomia
 17101 Eupatorium
 17102 Joraria
 17103 Peperomia
 17104 Rhytolacca
 17105 Adiantum
 17106 Mnium
 17107 Moss
 17108 "
 17109 "
 17110 "
 17111 "
 17112 "
 17113 "
 17114 Anthurium
 17115 Tillandsia

- H epip?
 H epip
 S 8-12'
 H ter.
 S 12-20' slender
 T 8-10' trunk erect, 1" diam. fls. in crown at summit
 S 2-20' slender
 H epip.
 H epip.
 H aep. rooting stem below
 V herb
 H ± woody below
 V herb.
 H tall
 H
 S 10-12'
 H 2-4'
 H
 H aep. ter.?
 ?
 S 5-8'
 H
 H 1-2.5'
 H aep. coarse 3-5'
 Moist banks
 Wet logs
 " "
 " "
 " "
 " " } upright
 " "
 " "
 H ter.
 H epip.

See notes

Cor. wh.

Pr. cr.

Cor. light pi.

Ar. rich pi out, in

Pr. scarlet

Calyp. y. g. at apex & lobes
 pi. red below; pet. & fil. deep

Bracts pale

leg. cr., paler prox.

Sep. purple base, gr. above, fil. red-pink.

Cor. wh., gr. tinged out, anther y.

Pr. wh.

Cor. rich pi.

Cor. gr.-wh., lobes deep pi., styles light pi.

Pet. wh., fr. gr.

Sep. calyp. rich pi. at base
 gr. else, styles red pi.

Ar. gr., lobes pi. tinged

Jan. 13 woods near California

2400
 -2000m.

stream bed

purple, anther gray-pi.

Anthurium coripetense N. B. Z. det. D. Croat 1990

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- 17116 Mesquite
- 17117 Pisonum?
- 17118 Melastom.
- 17119 Carex
- 17120 Euphorb.?
- 17121 Eupatorium
- 17122 Phytolacca
- 17123 Mupia
- 17124 Alsophila
- 17125 Eriolaena
- 17126 Sauratheria
- 17127 Piper
- 17128 Lycopodium
- 17129 Eupatorium
- 17130 Eupatorium
- 17131 Comp.
- 17132 Tiliaceae
- 17133 Verbesina or Coreopsis?
- 17134 Cuphea
- 17135 Cinchona
- 17136 Muehlenbeckia tamnifolia
- 17137 Castilleja
- 17138 Hypericum
- 17139 Grass
- 17140 Castilleja (= 17137??)
- 17141 Escallonia floribunda
- 17142 Meibomia
- 17143 Soralea
- 17144 Centropogon
- 17145 Myrsinaceae
- 17146 Alsophila
- 17147 Rubus
- 17148 Passiflora mixta
- 17149 Parietaria
- 17150 Salvia

V herb.
H 1-1.5'
H woody
H
H 2-3'
H coarse and
S 8-12'
Caudex 1', semi-decumbent; stipe 2-3', pr 6-10'
H
S 8-10'
S 8-15'
H trailing over banks
S 8-12'
S branches, herbaceous
S 5-7'
H
T 12-20'
S 8-12'
H
T 20-25'; trunk slender, 3" diam
V herb
H woody below
H woody
H woody below
T 10-20'
H demifrustate
S 10-15'; much branched below
V woody
T 15-20'
Caudex decumbent or subter.; stipe 2', pr 4-5'
V woody
V woody
H erect
H branch at first prostr. then erect.

Young heads gray wh.
St. wh. purpl streaked
Peto. & anth. bright y
Cor. gr.-wh., lobes o
Sep. & styles rich pi.
Dr. gr.
Dr. black
Spikes gr.
Cor. bright y. lower 1/2, pi. up
lobes wh. to light pi.
Cor. apparently wh., but with
heads or rays y.
Pet. gr. y, but young
Rays bright y; wh. g-or
Calyx red-purp; Pet. pi.
Cor. pined out, wh. in.
Per. g-g; pr. y-g.
Br. g. red, y. ap. on light pin, y. gr. ventrally
Pet. y
Colony as in 17137
Pet. wh
Pet deep blue
Pet. bright blue.
An. red
Pr. light gr.
Pet. wh.
See notes
Per. gr. wh.
Cor. deep blue

Jan. 13 wood near California
wing wh. mag. black collar
14 open banks ~~Ret. California~~ La Baja

Thickets
styles deep pi. open banks

thickets north of La Baja

shaded bank
clearing open

± 2000m
2200
-2600m.

2200
-2900m.

2
3
2

17151	<i>Asplenium</i>	H	
17152	<i>Asplenium</i>	H	
17153	<i>Pestuca</i>	H	
17154	<i>Erodium</i>	H	
17155	<i>Agrostis</i>	H	
17156	<i>Solanum</i>	S 8-12'	Cor. wh, anthers y
17157	<i>Eupatorium</i>	S 5-8'	Cor. gr. wh, lobes obovate
17158	<i>Saracha?</i>	H?	Cor. wh, purp. cent. in
17159	<i>Echinocystis</i>	V herb.	Cor. wh.
17160	<i>Rumex conglomeratus</i>	H	Per. gr.
17161	<i>Passiflora</i>	H	Same as 17112
17162	<i>Pteris</i>	H	
17163	<i>Tournefortia</i>	Flowers 10-15'	Cor. gr. wh, fr. wh.
17164	<i>Polypodium incisum</i>	H ter. repeat	
17165	<i>Polypodium glaucophyllum</i>	" " "	
17166	<i>Rust on Sphacele</i>		
17167	<i>Riparian</i>	S 5-6'	
17168	<i>Ledum</i>	On south bank	
17169	<i>Cypripedium</i>	Sec. herb.	Pet. y
17170	<i>Orthocentrus</i>	H	Per. bl
17171	<i>Stevia</i>	S 8-10'	Cor. wh. used for inflammation
17172	<i>Cruciferae</i>	H	Pet. y
17173	<i>Lobelia</i>	H	Cor. light bl.
17174	<i>Thibaudia</i>	S 8-15'	Calyx & lower 2/3 cor. bright red
17175	<i>Pellaea</i>	H	
17176	<i>Dryopteris</i>	H	
17177	<i>Alsophila</i>	Caulesc. subter.	Stipe 2-3', fr. 2'
17178	<i>Leabum</i>	S 8-13'	Range y
17179	<i>Polygala galwides</i>	H 2-3'	Pet. pi.
17180	<i>Melastomaceae</i>	T 20-30'	Pet. wh.
17181	<i>Cyathia</i>	wh?	
17182	<i>Rust</i>		
17183	<i>Comp.</i>		
17184	<i>Eupatorium</i>	S 6-10'	Range wh. lobes y
17185	<i>Centropogon</i>	V. muddy	Cor. lobes obovate, spec. - blue Cor. bright red

Jan. 14	shaded bank clearing open hillside	above La Baja	2700 2900m	1
light pi with y				2
	shaded bank open hillside			1
	shaded bank open hillside			1
upper 3d con. above pale pi				1
	woods			

17186	<i>Stenorrhynchos</i>	H sec ter	3 net sep red, 2 in. pi.
17187	<i>Bomarea</i>	V herb	lip wh.
17188	<i>Pilea lauciodora</i>	H sec	See notes
17189	<i>Elaphoglossum</i>	H ter.	
17190	<i>Elaphoglossum</i>	H ter.	
17191	<i>Solanaceae</i>	S with much -	Cor. pi. - w, anther y.
17192	<i>Solanum</i>	S gnarled branch	Cor. light bl, " "
17193	<i>Episcadium</i>	H woody below	See notes
17194	<i>Franseria</i>	H	Cor. gr. - y.
17195	<i>Vernonia?</i>	S 8-12'	Pappus wh.
17196	<i>Passiflora mollis</i>	V woody	
17197	" <i>ligularis</i>	V herb	See notes
17198	<i>mos</i>	V herb woody	Black
17199	<i>mos</i>	on banks	
17200	<i>Passiflora rugosa</i>	on banks	See notes
17201	<i>Alsophila</i>	V woody	
17202	<i>Centropogon</i>	Caudex subter.	stipe 1-2', fr. 2'
17203	<i>Eupatorium</i>	S 2-4'	Cor. deep red out, pi. white
17204	<i>Bidens</i>	S 4-6'	Tube, lobes, style, pi.
17205	<i>Eupatorium</i>	H woody below	Cor. gr., pink-lipped
17206	<i>Miconia</i>	H woody below	Cor. style, wh.
17207	<i>Lilandsia</i>	S or on tree	Dr. wh. pure
17208	<i>Centropogon</i>	H epip.	Comp. lvs. gr. dist.
17209	<i>Psychotria</i>	V woody	red dist. buds orange
17210	<i>Eschschia</i>	S 8-10'	Tube red out, 2-pi in.
17211	<i>Eriochloa</i>	S 1.5-3'	See notes
17212	<i>Orchid</i>	H	Cor. wh.
17213	<i>Castilleja</i>	H	Inf. wine-color
17214	<i>Senecio</i>	H	See notes
17215	<i>Gaultheria</i>	S 4-8'	bracts, bright red. ^{advent}
17216	<i>Eupatorium</i>	S 2-4'	Heads y.
17217	<i>Defaria</i>	S 4-5'	Calypso, pi. tint, tube
17218	<i>Lichen</i>	S 1-2'	Cor. pi. w., lobes, sty. deep
17219	<i>Trichomanes</i>	on dry twigs	Cor. wh. at base, rich pt.
17220	<i>Hymenophyllum</i>	H epip.	

Jan. 14	Stratford woods above La Baya	2700 -2900 ft
	rocky bank	
	clearing	
	open hillside	
	woods	
15.	" above California on road to Paramo Rico	3000- 3500m.
	open hillside	
	light pi., lobes deep pi.	
	light pi.; anther light gr. fls. various	
2	woods ^{w. slopes} edge of Paramo Rico	3600 -4000m.
	paramillo	

17221 *Hymenophyllum*
 17222 *Odontosoria*
 17223 *Columnea*
 17224 *Cestrum*
 17225 *Castilleja*
 17226 *Calceolaria*
 17227 *Arnica*
 17228 *Verbesina*
 17229 *Melastom.*
 17230 *Eupatorium*
 17231 *Eupatorium*
 17232 *Fern (like Polystichum)*
 17233 *Cestrum*
 17234 *Alonsoa*
 17235 *Passiflora nicta*
 17236 *Duchisia*
 17237 *Lupinus*
 17238 *Barnadesia*
 17239 *Alnus*
 17240 *Gaultheria*
 17241 *Pleurothallis*
 17242 *Orchid*
 17243 *Eupatorium*
 17244 *Verbesina*
 17245 *Echeveria*
 17246 *Digitalis*
 17247 *Stelia*
 17248 *Marrubium*
 17249 *Solanum*
 17250 *Cheilanthes*
 17251 *Elaphoglossum*
 17252 *Vicia*
 17253 *Calceolaria*
 17254 *Polylepis*
 17255 *Hypericum*

H epip
 Vine
 H ter?
 S low
 N wood below
 S low
 H 6-10' Coarse
 S 6-10'
 S low
 S 6-90'
 S
 H
 S
 H woody
 V woody below
 V
 H 2-2.5'
 S 9-12'
 S 20-25'
 S 15' (C)
 H epip.
 H epip.
 S 2-4'
 S 6-8'
 H acc.
 H
 S 1-2' viscous
 H 4-8' elongate
 H Gr., woody below
 S 6-12'
 H
 H ter
 V herb
 S 1.5-4'
 S 3-4' dry
 S 1-2'

Br. gr. entire base, red
 Calyx gr., Cor tube purple
 Br. red, gr. prox
 Cor. y
 Rays of florets bright purp
 Rays y, florets deeper
 ?
 See notes
 Cor tube gr. wh., lobes o
 styles wh, pi. tinged,
 Tube deep purp, lobes gr.
 Cor. or.-red.
 See notes
 Tube o sep. pi, deeper purp
 pet. red
 Pet. bright bl, paler out
 Rays pi. wh. cor
 pi. prox, broken dist.
 Cor. rich pi. slightly
 all parts of flower
 brown - bl.
 See notes
 Br. purple, Cor. gr. w prox
 purpl. pi. dist. o lobes, rays
 Rays of florets y
 Pet. pi. pale, y, gr. tinged dist.
 See notes
 Cor. rays pi to wh
 Gr. pi wh, blue dotted
 Cor. wh. anthy.
 See notes
 Cor. bright y
 Pet. y; st. ± 50

paramillo w. sl.
 au. 15 woods. edge of Paramo Rico

3600
 + 4000 m.

(3) edge of woods, Bet. California, & Vetas

2500
 - 3500 m.

(1) 16 open, mostly rocky, hillside, Vic. Vetas

3100
 - 3250 m.

17256	Agrostis	H	
17257	Eragrostis? stuebelii	H 2-3'	heads gr. wh. mag. y-g cent.
17258	Elaphoglossum	H	
17259	Asplenium	H	
17260	Asplenium	H	
17261	Fern (like Polystichum)	H	
17262	Oralis	H matted caespit	Pet. y
17263	Cestrum	S 2-6'	Included, pump, lobes en, paler gray margin
17264	Eupatorium	S 3-6' lvs rather fleshy	Cor. white other part wh.
17265	Urtica nsp.	S 2-3' drooping & branched	Cor. white other part wh.
17266	Malvastrum	H caespitose; lvs flat on ground	Pet. pale pi, nearly wh.
17267	Solanum	S 1-2'	Cor. wh., anthers y.
17268	Cereus	S 4-8'	Heads light y.
17269	Stevia	H woody	Cor. & style light pi
17270	Centropogon	S 2-4'	Cor. bright red, pale pi in
17271	Centropogon	S 4-7'	" " " " "
17272	Nicotiana	S 4-6'	Pet., st. & anthers w
17273	Permettija	S 4-8'	Cor. wh.
17274	Befaria	S 2-3'	Cor. & fil. red-pi anthers y
17275	Geranium	H	Pet. pi.
17276	Phoradendron laubbeckia	V herb	Per. y-g.
17277	Polystichum	H	
17278	Peperomia	H Epip	
17279	Bomarea	V herb	See notes
17280	Thibaudia	S 8-12'	Calyx beavy, gr. mag; deep red, for at st lobes
17281	Thibaudia	S 6-8'	Cor. deep red, lobes pi
17282	Moss	On banks	
17283	"	" "	
17284	Lichen	" "	
17285	Sphagnum	Moist soil	
17286	Peperomia	H Epip	Spikes wh.
17287	Peperomia	H herb	Spikes gr.
17288	Eriochlaena	H	Infl. purple-red.
17289	Elaphoglossum	H	
17290	Trifurca	H	Pet. bright blue in, out

u. 16 open, mostly rocky, hillsides, Via Velas

3100
-3250m